

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1361.—Vol. XXXI.

LONDON, SATURDAY, SEPTEMBER 21, 1861.

(WITH SUPPLEMENT) (STAMPED.....SIXPENCE. UNSTAMPED...FIVEPENCE.)

MR. JAMES CROFTS, SHAREBROKER,

No. 1, FINCH LANE, CORNHILL. (Established 17 years.)
Mr. Crofts has to notice that, with the exception of worthless shares (the crop of which is diminishing on the market), adventures in mines will do well to continue to hold both dividend and progressive stocks, for the reason that the market has decidedly become more of a buying than a selling one, and perfectly safe investments may now be entered upon. The reduced value of money is, no doubt, mainly contributing to this favourable change, which can now scarcely become otherwise than permanent in its character. Mr. Crofts will advise.

The paying shares in EAST WHEAL MARTHA COPPER MINE being all subscribed for, the £2 10s. paid-up become of increased value, being the only ones to which the public can resort as an investment. Mr. Crofts has business to transact in them, but recommends early applications.

Holders of mining shares DIFFICULT OF SALE in the OPEN MARKET may hear of purchasers, and also parties IN ARREAR OF CALLS, or sued by merchants, may learn their true legal position and be advised how to act, by applying to Mr. Crofts.

Among the mines of merit lately reported to Mr. Crofts from his Cornish correspondent is EAST PROVIDENCE, its prospects being represented as of the first order. Information as to the value of the shares may be had by bona fide investors.

MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.

JAMES LANE has FOR SALE, at net prices:—30 Arthur; 10 Alfred Consols, £1; 5 Billins, £14; 20 Carn Camborne, 27s. 6d.; 50 Crebor, 11s.; 20 Devon Union, 15s.; 40 Dale, 16s. 6d.; 10 East Caradon, £26½; 20 East Treskerby, 22s. 6d.; 10 East Russell, £3½; 40 Great Wheal Martha, 35s.; 5 Gonaenna, £1½; 20 Great Retallack; 3 Herodfoot, £36; 5 Hington Down, £3½; 50 Lady Bertha, 17s.; 10 Ludcott, £3½; 50 Lady Eliza, 8s.; 5 Mary Ann; 10 Marke Valley, £10½; 150 Molland, 9d.; 20 North Hainbeagle, 25s.; 20 North Downs, £8; 50 North Nant-y-Mwyn, 5s. 6d.; 5 Old Tolgus; 10 Par Consols; 10 Penhale Moor, 27s. 6d.; 20 Rosewall Hill and Ransom; 5 Trelawny, £15; 2 West Caradon, £4½; 2 West Rose Down, £16; 20 West Polmar, 15s.; 150 Wrey Consols, 3s. 6d.; 20 Wheal Edward, £2; 5 Wheal Grylla, £3½; 20 Unity, 21s.; 50 Lower Taidra, 9s. 6d.; 3 North Treskerby, £23½; 3 Bryn Gwlog, £25½.

PETER WATSON, ENGLISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES,

79, OLD BROAD STREET, LONDON, E.C.
Telegraphic messages to Buy or Sell Mine Shares punctually attended to.

MINE SHARES WANTED for immediate cash, any part of the

following:—
2 West Caradon, £44.
100 Wheal Grylla, £3½.
3 Stray Park, £31½.
100 Kelly Bray, 17s.
250 Wheal Arthur, 11s.
2 Rosewarne Utd., £19.
2 North Roskear, £16.
1 South Frances, £16½.
30 East Russell, £3½.
60 Lady Bertha, 16s.
PETER WATSON, 79, Old Broad-street, London, E.C.

MR. W. LELEAN, MINE SHAREBROKER,

11, ROYAL EXCHANGE, LONDON, E.C.

MR. T. ROSEWARNE, 75, OLD BROAD STREET, LONDON, E.C., has FOR SALE:—

Creake, £3½.
Calstock Consols, 12s.
Drake Walls, 19s. 6d.
East Russell, £3½.
East Caradon, £26½.
Gawton, 4s.
Grimbler, £14.
Great W. Martha, 33s. 9d.
And is a BUYER of:—
Great Fortune.
Wheal Grenville.
West Caradon.
An OFFER WANTED for:—
Bronfloyd.
Gonaenna.
September 20, 1861.

North Treskerby.
East Grenville.
Wheal Norris.
Pelyn Wood.
Wheal Wrey.
Bankers: Bank of London.

MR. JAMES HUME, SHAREBROKER, 74, OLD BROAD STREET, LONDON, E.C.

Mr. Hume has FOR SALE:—
100 Gawton United (offer wanted).
And is a BUYER of:—
200 North Robert.
50 North Basset.
Gentlemen having business in the above will please send limits, or otherwise communicate with Mr. Hume.

The "Mining Share Monitor," published monthly, contains valuable information on the soundest dividend and progressive mines. Free for 6d., or 5s. per annum. Advice to capitalists by letter or personally.

Bankers: London Joint-Stock Bank.

JOHN RISLEY, SHAREBROKER,

32, LOMBARD STREET, LONDON, E.C.

MR. THOMAS SPARGO, SHAREBROKER,

224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.
Commission, 2½ per cent.

MR. GEORGE BATTERS, 5, COWPER'S COURT, BIRCHIN LANE, DEALER IN BRITISH MINING SHARES AND OTHER SECURITIES.

Mr. Batters, from long experience and intimate acquaintance with all Mining Stocks, can advise as to investment of capital, at closest market prices, and has made a selection of Dividend paying and sound Progressive Stocks into which he can with confidence recommend investments at present depressed prices. The favourable turn in the market for metals, and the reduction in the Bank's rate of interest, would point to prices having seen their lowest for the present.

Mr. Batters is a BUYER of Great Wheal Martha, East Carn Brea, North Miners, South Carn Brea, Brynford Hall, Cook's Kitchen, Wheal Unity, Great Retallack, East Caradon, Marke Valley, and Wheal Edward. And is a SELLER of 20 Wheal Ludcott, £3½; 50 Wheal Grenville, 36s.; 5 Wheal Trelawny, £14½; 100 Wheal Unity, £1; 4 Stray Park, £33; 3 South Frances, £117½; 10 Providence, £43½; 10 East Carn Brea, £9½; 100 East Grenville, 40s.; 90 Great Wheal Martha £1½; 30 Marke Valley, £10½; 3 Cook's Kitchen, £31; 50 North Miners.

MR. BATTERS has SPECIAL BUSINESS in the SHARES of GREAT WHEAL MARTHA MINING COMPANY.

Mr. GEORGE BUDGE, SHAREBROKER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 14 years), has FOR SALE the following shares:—10 Creake, £3 2s.; 2 East Basset, £29½; 20 Trefusick, 15s.; 100 East Grenville, 38s.; 50 Great Retallack, 25s. 6d.; 35 Wheal Unity, £2 15s.; 50 Great Wheal Martha, 19s.; 20 Crane, £3; 15 East Wheal Lovell; 10 Marke Valley, £10 6s. 6d.; 30 North Downs; 50 North Miners; 100 Gawton, 3s. 9d.; 50 West Polmar; 40 Wheal Edward; 5 North Treskerby; 20 Pendeng; 5 Silver Rake, £14½; 20 Tolarne, £3½; 40 Buller and Basset, £28; 50 Crebor, 5s. 9d.; 1 Devon Great Consols; 50 Carnarvon; 3 West Bryn Gwlog, £25; 50 Crebor, 5s.; 100 Wheal Arthur; 30 Holmbush, 38s.; 3 Herward United, £9 17s.; 10 East Carn Brea, £9½; 1 South Caradon, £20½; 25 Wheal Grylla; 100 North Nant-y-Mwyn, 4s.; 3 Wheal Margaret; 50 Wheal Harriett; 2 West Rose Down; 2 Wheal Damsel; 3 Old Tolgus; 70 Great Trevelick, 14s.; 5 Stray Park, £31½; 2 West Caradon; 10 East Caradon, £26½.

Holders of mining shares difficult of sale may find purchasers through Mr. Budge.

FIFTEEN TO TWENTY, and even TWENTY-FIVE PER CENT. PER ANNUM upon current value of shares, in CORNISH TIN and COPPER MINES.

Dividends payable two-monthly or quarterly.

MESSRS. TREDINNICK AND CO., MINING ENGINEERS,

SEND THEIR SELECTED LIST OF STOCKS, PROGRESSIVE AND DIVIDEND SHARES upon the receipt of a Fee of One Guinea.

Review of Cornish and Devon Mining Enterprise, 5s. per copy.

Maps per post of the Buller and Basset, Great Vor, Alfred Consols, the Providence and Margaret Districts, 2s. 6d. each.

Cornish Mines, well selected, pay better than any other description of securities, are freer from risks, and entail less responsibilities than banks and other joint-stock companies. Shares bought and sold on commission of 2½ per cent.

Money advanced at 10 per cent. annually, for short or long periods, upon approved Mining Shares.—78, Lombard-street, London, E.C.

BRITISH AND FOREIGN STOCK, RAILWAY, AND MINING SHARES BOUGHT AND SOLD.

A considerable amount of money is locked up in mining shares not prominently before the public, and consequently difficult of sale. Messrs. FULLER AND CO., 26, CHANGE ALLEY, CORNHILL, LONDON, invite the holders of such stock to communicate with them, having channels for the purchase and sale of shares of every description, independent of the mining market.

FOR SPECIAL SALE:—Messrs. FULLER AND CO. have £6500 worth of shares on hand, paying regular dividends of from 12½ to 15 per cent. Also, £2750 worth of progressive shares, upon which from 200 to 300 per cent. profit may be realised in a few months, and perfectly free from risk. Full particulars may be had.

Telegraphic messages promptly attended to.

Bankers: Bank of England.

GEORGE MOORE,

1, CROWN COURT, THREADNEEDLE STREET.

GEORGE MOORE will SELL the following SHARES, or any part, to-day, at quoted prices, FREE OF ANY COMMISSION:—
50 East Grenville, 38s. 9d. 50 North Dolcoath, 16s. 9d. 1 S. Wh. Frances, £118½
20 East Rosewarne, 23s. 9d. 50 North Miners (£1 paid, 25s. 9d. 5 Stray Park, £32½
30 Gt. Wh. Martha, 31s. 9d. Limited, 25s. 9d. 25 Tolarne, £3 1s. 3d.
In any business that GEORGE MOORE is favoured with, in which he is the buyer, he will give CASH ON RECEIPT OF TRANSFER.

JAMES HERRON has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:—

20 Alfred Consols, 19s. 9d. 5 Herodfoot, £35½. 50 Sorridge Cons., 9s. 6d.
20 Bottle Hill. 2 Herward Utd., £9 17 6. 40 St. Day, 12s. 3d.
3 Bryn Gwlog, £29½. 10 Holmbush, £1 19s. 2 South Bryn Gwlog, £12.
5 Billins, £17. 2 Kitty (Lelant), £7 18s. 6d. 10 So. Carn Brea, £3 9s. 6d.
2 Brynford Hall, £21½. 30 Kelly Bray, 18s. 9d. 1 South Wheal Frances, £118½.
40 Buller and Basset, 5s. 9d. 40 Lady Bertha, 16s. 9d. 2 Silver Rake, £14.
5 Craddock Moor, £27½. 10 Linares, £7½. 50 Silver Rake (20s. paid) 11s. 6d.
1 Carn Brea, £76½. 10 Long Rake, £12 5s. 4 Trelawny, £14½.
5 Cobre, £37. 10 Ludcott, £3 10s. 40 Tamar Con., £1 16s.
20 Cefn Cilean, 12s. 20 Lady Eliza, 8s. 9d. 20 Tolvaaden.
20 Camborne Vein, 40s. 6d. 10 Marke Valley. 10 Treloweth, £3½.
30 Carn Camborne, 25s. 100 Molland, 10d. 50 Utd. Mexican, £5½.
5 Caradon Consols. 2 Mary Ann, £11 10s. 100 Vale of Towry, 4s. 6d.
1 Cargoll, £16½. 50 North Miners. 2 W. R. Down, £15 1 6.
5 Calvadack, £8½. 5 North Basset, £6 7s. 6d. 2 West Stray Park, £3½.
2 Cook's Kt., £30½. 1 North Treskerby, £24½. 2 West Sharp Tor, 11s. 6d.
20 Cudda, 35s. 5 North Downs, £27½. 2 Wen. Con., £15 7s. 6d.
5 Creake, £2. 10 New Treleigh, 37s. 9d. 40 W. H. Grenv., 38s. 9d.
40 Dale, 16s. 9d. 2 New Seton, £4½. 10 Wheal Harriett, 24s. 6d.
20 Deep Level, 12s. 6d. 30 North Rhine, 7s. 10 Wheal Crebor, 10s.
30 Drake Walls, 18s. 6d. 30 Nant-y-lago, 15s. 1 Wh. Margaret, £44½.
1 Devon Gt. Cons., £367½. 10 North Crofty, £5½. 10 Wh. Edward, £1 14s. 6d.
10 Dyrngwm, £9½. 20 New Frances, 9s. 6d. 5 Wheal Uny, £4½.
5 East Russell, £13s. 9d. 1 North Roskear, £18½. 30 West Polmar, 14s.
20 East Carn Brea, £9 7s. 6d. 30 North Buller, £3½. 30 West Tolarne, 8s. 3d.
20 East Grenville. 20 North Hainbeagle, 11s. 1 Wheal Moyle, 38s. 9d.
5 E. Caradon, £26 10s. 5 No. Frances, £3 13s. 9d. 20 W. So. Caradon, 19s. 6d.
50 English and Australian 20 North Robert, 15s. 1 Wheal Caradon, £44½.
Copper, £3 10s. 9d. 30 South Buller and West 1 Wheal Grylla.
30 East Kongsberg (fully 20 Old Tolgus, £11½. 10 Wheal Prosper.
paid up £5), 25s. 6d. 100 Port Phillip, 21s. 6d. 30 West Wendron, 13s. 9d.
1 East Basset. 2 Providence, £44½. 20 Wheal Arthur, 10s.
1 Glimbler, £14 10s. 30 Prosper United, 17s. 6d. 5 Wheal Hearle.
5 Great S. Tolgus, £4 4s. 10 Pendeng, £5½. 10 Wheal Wrey, 4s. 9d.
20 Great Alfred, 8s. 9d. 20 Rosewarne Utd., £23½. 50 West Devon Consols.
50 Great Moelwyn (£1 10s. 20 Rosewall Hill & Ransom, 27s. 9d. 1 West Frances.
paid), 20s. 50 Ridden, 4s. 9d. 50 Wheal Wrey, 4s. 9d.
20 Gonaenna, £2½. 10 St. John del Rey, £40. 20 Wheal Wrey, 4s. 9d.
100 Gt. Northern Copper, 30s. 2 Stray Park, £31½. 50 Wheal Wrey, 4s. 9d.
20 Great Crinins, 22s. 6d. 40 So. Condurrow, 8s. 9d. 50 Wheal Wrey, 4s. 9d.
20 Great Martha, 31s. 6d. 30 South Caradon Hooper, 20s. 9d.
2 Gt. Fortune, £14 15s. 1 South Caradon, £205.
30 Great Retallack, 25s. 10 Hings. Down, £2 7s. 9d. 2 St. Ives Cons., £32½.
10 Hings. Down, £2 7s. 9d. 20 Rosewall Hill & Ransom, 27s. 9d.
And is a BUYER of 100 West South Caradon, 100 North Miners, 10 Trelawny, 5 Bryn Gwlog, and 15 Rosewall Hill and Ransom United.
2, Adam's-court, Old Broad-street, September 20, 1861.

MESSRS. VIVIAN AND REYNOLDS, 68, OLD BROAD STREET, LONDON, E.C., MINING ENGINEERS, INSPECTORS OF MINES,

COMMISSION, AND GENERAL AGENTS for the PURCHASE or SALE of MINE SHARES, RAILWAY, AND EVERY OTHER DESCRIPTION OF STOCK.

Commission on share transactions, 1¼ per cent. on £100 and above, and 2½ per cent. for less sums.

MR. C. POWELL, MINE SHAREBROKER,

2, SPREAD EAGLE COURT, FINCH LANE, LONDON, E.C.

MR. EDWARD COOKE, MINING, STOCK, AND SHAREBROKER, 5, HERCULES PASSAGE, THREADNEEDLE STREET, LONDON, E.C., will feel much pleasure in advising those who may favour him with their confidence on the merits of the various mines usually dealt in, and also on any new concerns that are from time to time brought before the notice of the public, and has FOR SALE, at the following NET PRICES:—

25 Unity, £1.
2 Wheal Margaret, £46½.
100 Chalcote Utd., 18s. 9d. 5 Cook's Kitchen, £30½. 2 Long Rake, £12.
60 Polgar, 5s. 25 East W. Damsel, £1½. 12 Tolvaaden, £3½.
25 Nant-y-lago, £1. 55 East Budnick, 6s. 10 Creake, £3½.
25 Carn Camborne, 25s. 10 Rosewall Hill, £1½. 12 No. Glimbler, £5½.

BUYER of Wheal Grylla at £8.

Sept. 20, 1861. Bankers: London and Westminster, Lothbury.

MR. J. S. PHILLIPS, C.E. AND M.E., SHAREBROKER, &c.,

12, ST. MICHAEL'S ALLEY, CORNHILL, LONDON, is now on a tour through the Cornish mines.

MR. R. H. M. JACKMAN, MINING AND SHAREBROKER,

2, ADAM'S COURT, OLD BROAD STREET, TRANSACTS BUSINESS IN EVERY DESCRIPTION OF SHARES, at closest prices net, or on commission, but not being a dealer buys and sells only on orders confided to him.

Sept. 20, 1861. Bankers: London and Westminster, Lothbury.

MR. E. GOMPERS, MINING OFFICES,

3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C. BUSINESS TRANSACTED IN BRITISH AND FOREIGN STOCKS AND SHARES. Terms, 1¼ per cent.—Bankers: London and Westminster Bank.

MESSRS. R. HORLEY AND CO., SWORN STOCK, SHARE, AND MINING BROKERS, 45, CORNHILL, E.C. (late of 2, Royal Exchange-buildings), continue to TRANSACT EVERY DESCRIPTION OF MINING BUSINESS, and are in a position to obtain reliable information respecting all dividend and progressive mines.

N.B.—Messrs. HORLEY and Co. publish a Weekly Mining List, with the closing prices every Wednesday, and will be most happy to forward the same (gratis) on application.

RICHARD CLIFT, MINE SHAREDEALER,

late of Redruth, now 48, THREADNEEDLE-STREET, LONDON, where all letters are to be addressed.

WILLIAM SEWARD, MINING BROKER, STOCK AND SHAREDEALER, 26, THORNGROVE STREET, LONDON, E.C.

Commission, 1¼ per cent. on £100 and above, and 2½ per cent. on less sums.

MR. JOSEPH GREGORY, MINING OFFICES,

1, BANK CHAMBERS, LOTHBURY, E.C. BUSINESS TRANSACTED IN BRITISH AND FOREIGN STOCKS AND SHARES. Terms, 1¼ per cent. on £100 and above, 2½ per cent. on smaller sums. Bankers: City Bank, Threadneedle-street.

JOHN GLEDHILL AND CO., MINE AGENTS AND SHAREBROKERS, MINING OFFICES, CORN EXCHANGE, LEEDS.

STOCK AND CO., LEAD AND SILVER SMELTERS, PENCLAWDD, NEAR SWANSEA.

MR. J. SYKES, LEAK, STAFFORDSHIRE.

FOR SALE:—26 Dale, 15s. 6d.; 5 Gurlyn, 15s.
WANTED, a GOOD SLATE QUARRY SETT IN WALES.

GEORGE RICE, SHAREBROKER, 1, FINCH LANE, CORNHILL, TRANSACTS BUSINESS IN MINING SHARES for cash or account at close prices. Net or commission, 1¼.

EAST CARADON.—Latest Report: 60 east, 25½ per fm.; 60 west, 20½ per fm.; branch, 18½ value of end in rise, 35½; 50 east, 25½. Ore sold yesterday realised about £2290. Rather less in money than last sale, although a larger number of tons were sold, a portion being of lower quality. The shares are still "bullied" and "beared" considerably; the "bulla" being the strongest have again succeeded in putting up the price to £26½, £27. My clients need no further advice from me as to their buying or selling at these prices. Money advanced on dividend and good progressive mines at moderate rates of interest. Bankers: Bank of London.

MR. MURCHISON'S REVIEW OF BRITISH MINING FOR THE QUARTER ENDING 30th MARCH, 1861, IS NOW READY.

Price One Shilling. At 117, Bishopsgate-street Within, London, E.C.

CHARLES DAVEY AND CO., SAFETY FUSE MANUFACTURERS, ST. HELEN'S JUNCTION, LANCASHIRE.

MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER, 2, CROWN COURT, THREADNEEDLE STREET, LONDON.

MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, 16, HACKINS HEY, LIVERPOOL.

JOHN ROBERT PIKE, GENERAL SHAREDEALER, 3, PINNERS COURT, OLD BROAD STREET, LONDON, E.C.

JAMES B. BRENCHLEY, DEALER IN MINING SHARES, 78, OLD BROAD STREET, E.C.

Sales and purchases effected for immediate cash.

FOR ESPECIAL SALE:—
100 Worthing, 11s. 6d. 2 Herodfoot. 50 St. Day, 12s.
5 Long Rake, £12½. 25 Carn Camborne, 26s. 25 Wheal Uny, £4.
AN OFFER WANTED for (or part)—
100 South Darren. 100 Wheal Prosper. 20 Penhaldarva.
10 South Miners. 100 Tynningham Consols. 10 East Trefusick.

POWELL AND PAR UNITED MINE.—MR. H. B. RYE would

CALL the ATTENTION of his friends and the public to this PROMISING young MINE, the locality being one of the best in Cornwall, with good management, and requiring little additional outlay for its development. Further particulars on application. 77, Old Broad-street, London, E.C.

FREDERICK WILLIAM MANSELL, MINING OFFICES, 1, HATTON COURT, THREADNEEDLE STREET, LONDON, E.C.

Bankers: London Joint-Stock Bank.

MR. JAMES HAMMON, STOCK AND SHAREDEALER, 1, CROWN COURT, THREADNEEDLE STREET, LONDON.

MESSRS. THOMAS PENROSE AND THOMAS PRICE

UNDERTAKE ASSAYS AND ANALYSES OF EVERY DESCRIPTION OF MINERAL PRODUCT, FUEL, AND MANURES, at Messrs. Richardson and Co.'s Assay Office and Laboratory, Copper Ore Wharves, Swansea.

DEVON NEW COPPER MINING COMPANY (LIMITED).—

THREE HUNDRED AND FIFTY paid-up (£2) SHARES in this mine TO BE SOLD, at £1 per share.—Apply to Messrs. ELLIS and Co., No. 2, Royal Exchange-buildings, London.

MERSEY DOCK ESTATE.—THE MERSEY DOCKS AND HARBOUR BOARD REQUIRE the SERVICES of a COMPETENT PERSON

to FILL the POSITION of ACTING RESIDENT ENGINEER, and to take charge of such works as are now in progress of execution, as well as those in operation. The salary will be £1500 per annum.

Testimonials as to competency, and of having had experience in works of a similar character, must be forwarded to the Secretary of the Mersey Board on or before the 1st October next. By order, DANIEL MASON, Sec.

Dock Office, Liverpool, September 5, 1861.

TO CAPITALISTS.—WANTED, a PARTNER who can invest

a few hundred pounds to WORK a COLLIERY situated in the FOREST OF DEAN, GLOUCESTERSHIRE, already thoroughly opened on four of the best seams of red ash coal in the district. The colliery has been producing coal for some time, which has hitherto been shipped at Lydney Basin, and a satisfactory market has been secured for it. With a small additional outlay a vend of at least 70 to 80 tons of coal daily may be obtained.—For further particulars and to treat, apply to "Y. Z." Post-office, Lydney, Gloucestershire.

TO SLATE QUARRY PROPRIETORS.—A GENTLEMAN

who has a good practical knowledge of the slate trade WISHES for an ENGAGEMENT in NORTH WALES as CLERK and SALESMAN. He understands book-keeping both by double and single entry, and can give most unexceptionable references.—Address, "X. Y. Z." Post-office, Carnarvon.

WANTED, an AGENCY, by a PRACTICAL MINER, aged

32 years. Has had 12 years' experience as an agent in Cornish and other mines, and thoroughly understands both underground and surface operations, also mapping and planning, and can give unexceptionable testimonials.—Address, "A. B." Post-office, Ramsey, Isle of Man.

WANTED, a FORGE MANAGER, who thoroughly understands

the manufacture of iron from the pig to the bar.—Apply to Mr. JAMES EMMERSON WILLIAMS, Savings' Bank, Cardiff, South Wales.

WANTED, a ROLL TURNER in LONDON. One accustomed

to turn rolls for angle iron, T iron, bars, &c. None but a respectable, steady man need apply.—Address, stating terms, with testimonials, "Y. Z." Mining Journal office, 26, Fleet-street, London, E.C.

WANTED, a SECOND HAND HORIZONTAL ENGINE, with

Cornish BOILER, (about 20 to 30 in. cylinder preferred). Also, a CRUSHER, capable of being driven by a 14 in. cylinder engine. Also, a good Cornish boiler (about 7 or 8 tons, in good order).—Apply, with price, to J. HENRY, 23, Old Jewry, London.

VALUABLE TIN MINE.—A FEW GENTLEMEN have

SPENT a LARGE SUM of MONEY in OPENING an EXCELLENT TIN MINE in CORNWALL, and there is no doubt that it will soon give large profits. AN INTEREST THEREIN, and also in TWO OTHER FIRST-RATE MINES in full work, certain soon to pay well, MAY BE OBTAINED by bona fide investors in bona fide mines on application to JAMES HOLLOW, Mining Offices, Lelant, Hayle, Cornwall, and 1, Crown-court, Old Broad-street, London, E.C.—September 13, 1861.

SOUTH WALES STEAM COAL.—THE LESSEES of a

VALUABLE STEAM COAL PROPERTY of 1000 acres, possessing special advantages, are DESIROUS of MEETING with PARTNERS WILLYNG to INVEST SEVEN-EIGHTHS of the capital. The property lies within a convenient distance from a seaport, and has a direct rail communication with the North of England. References, and reports on the property by eminent mining engineers from the counties of Monmouth and Glamorgan, and by practical mineral surveyors acquainted with the locality, will be supplied on application to "A. B. M." Mining Journal office, 26, Fleet-st., London.

THE ADVERTISER, who has had much practical experience in

copper smelting, is DESIROUS of MEETING with an APPOINTMENT as MANAGER of a COPPER SMELTING WORKS, in which capacity he has acted for a number of years. No objection to go abroad. The best references.—Address, "T. S." are of Mr. H. Salter, 17, Abchurch-lane, London, E.C.

FOR SALE, FOUR JIGGING MACHINES, erected at a cost of

£5 5s. each, and nearly new. To be sold for 25s. each. Also, a POWERFUL CRUSHING MACHINE.—Apply to Jno. GOULD, auctioneer, Barnstaple.

ON SALE, an EXCELLENT SLATE QUARRY, on reasonable

terms.—For further particulars, apply to "D. R." slate rock inspector, Llanfyllf, Carnarvon.

SECOND-HAND CORNISH BOILER WANTED.—

Length, 25 to 30 ft.; diameter of shell, 6 to 7 ft.; pressure, 30 lbs. per square inch; internal fire tube. State particulars of thickness of shell and fire tube plates, diameter of fire tubes, &c.; also whether the fittings are attached, where the boiler may be seen, and lowest price.—Address

Original Correspondence.

PRACTICAL PAPERS ON COLLIERY OPERATIONS—No. XIV.
THE DUTIES AND RESPONSIBILITIES OF COLLIERY MANAGERS CONSIDERED,
AND THE QUALIFICATIONS NECESSARY FOR THEM TO POSSESS.

SIR,—The manager of a colliery at the present time is supposed to have unlimited power in conducting operations both above and underground, and to be in a position that he can order anything that is necessary for the safety and security of those engaged under him; therefore the responsibility rests upon the manager if life be sacrificed or injury sustained through his incompetency. If he fails to provide the workmen with all the necessary materials for safely conducting the various mining operations, and loss of life should be the consequence, or through either of the before-mentioned causes life should be lost, he is liable to be indicted for manslaughter if the charge can be brought home to him. If he violates the rules laid down for the guidance of colliery managers and others, he is liable to be summoned before the magistrates for each offence. It sometimes happens that proprietors and managers of collieries are summoned before the magistrates for slight offences compared with those they know to exist, and see going on unheeded at other collieries. This is not meant to imply that the Government Inspectors act in a partial manner, but that evils exist which the present staff of Inspectors are unable to detect, from their number being inadequate to the task of inspecting the number of collieries requiring inspection. But the punishment the manager receives from these sources is only slight compared with the agony of mind and remorse of conscience that must be experienced by those who have been the cause of the pinching and pressing wants of hunger being felt by the fatherless children and bereaved widows through the loss of those who ought to have been their protectors and supporters. This is painful enough to contemplate upon when only one or two families are thus rendered destitute and dependent upon the parish or friends, and when the loss of life has been occasioned by pure accident, but not to compare with what occurs when scores of once happy families are rendered dependent upon the generosity of a feeling and generous public, or consigned to the workhouse, and this, too, through the incompetence or negligence of a colliery manager. It is true the consciences of some of the colliery managers of this country do not appear to be so finely moulded as to be materially affected by the circumstances adverted to, but, for my own part, I envy not the mind and feelings of those who can pass over such trials with seeming indifference, and without allowing them to act as a warning in subsequent operations.

A colliery manager is also expected (and reasonably so) to manage the collieries under his charge in such a manner as to produce a good yearly profit for the proprietors, besides bringing back the capital expended in establishing the collieries,—a not very easy task in all cases, from the unhealthy competition that is now to be encountered on all sides, and which appears to be almost necessary to the existence of Englishmen of the present age. More baneful results appear to spring out of the present race of competition in the commercial world than almost all other evils combined. The manager is further expected to be as firm in mind as adamant, and as pliable and plastic as clay, in order to meet the various temperaments and dispositions of those engaged under him. Unless he be to some extent possessed of these opposite qualities he is liable to be imposed upon on the one hand, or to be in constant broils with the workmen on the other, and be exposed to ruinous strikes, which prove disastrous alike to employer and employed. He is also expected to perform the delicate and sometimes almost impossible task of giving satisfaction to both employer and employed, and to act as the connecting link between the two parties who, unfortunately, are so often widely estranged from each other. He, in short, is held responsible for all that affects the management of the collieries under his charge, and the safety and security of the workmen engaged under him. A colliery manager who would rise to the head of his profession must have a knowledge of palaeontology, mineralogy, and geology. He must be a mathematician, arithmetician, and geometrician. He must be equally well versed in the laws of mechanics, hydrostatics, and pneumatics. He must be a surveyor and draughtsman, and be acquainted with the prices of everything connected with a colliery, from a pound of nails to the value of an estate of 1000 acres, rich with mineral wealth. Above all, he must be thoroughly practical, without which the most intimate acquaintance with all the sciences named will be found of little service in the management of collieries. He must not consider himself too good to work, either physically or mentally, or consider it beneath him to make the strictest examination into the smallest matters, either above or underground. Many men of undoubted ability and good practical knowledge have failed to realise the expectations of their employers and others from sheer idleness, or a desire to do nothing that required physical exertion. Every-day experience confirms the fact that nothing great can be attained without labour, application, and self-denial.

It is not only possible that collieries can be managed by individuals who know little or nothing of science, but that they are sometimes well managed by those who are only one grade above the common miner is a well-known fact; but these are only isolated and exceptional cases, and do not in the least disprove that those who are capable of performing such tasks would have been much better qualified had they been acquainted with the previously-named sciences. Nature is sometimes so bountiful in bestowing her gifts, that men can and have accomplished great things by the strength of their extraordinary natural talents, with a very slight education, as is evidenced in the cases of Brindley and Stephenson, than whom none have done more in raising their country's greatness; but it is neither wise nor politic to trust to all being Brindleys or Stepheons, for probably not more than one of such men appears in a generation upon the world's stage. I think most will be found to agree with me that the practical man who has an equal share of scientific knowledge with the one who has only the scientific part of it must be infinitely better suited for the responsible position of a colliery manager. So with the one who is devoid of scientific knowledge, and trusts entirely to practical experience, must be much more liable to err in his judgment and decisions than one who has an equal share of practical experience combined with scientific attainments. The thoroughly practical man stands a much better chance of successfully managing a colliery, however illiterate he may be, than the purely scientific man, who has trusted to book learning and experiments. The mine is the proper place for the colliery manager to graduate in; by so doing he not only obtains a thorough practical knowledge, if he be of a thoughtful and reflective disposition, but he becomes inured to the dangers and toil that he cannot by any possibility free himself from in after life, should he act and do his duty as a colliery manager.

My suggestions upon this subject are that all coal proprietors should voluntarily agree to have a halfpenny per ton levied upon all coal sent to bank. Assuming that 72,000,000 tons of coal are annually raised; this would produce a sum of 150,000l. per annum. This amount, if judiciously spent in aiding and assisting young men who have worked in the mines for a period of six or seven years would be far more than adequate to prepare an efficient and well-qualified staff of colliery managers from those who had displayed some talent, or shown a strong desire to improve themselves. Difficulties might arise in the selection of claimants, and favouritism might exercise its influence, but these and minor difficulties might easily be overcome. Two years' training in a mining college, under the direction of competent tutors, would effect a wonderful change in the character of young men who had displayed talent and ability whilst in the capacity of colliers and assistants. When it is remembered that the sum named is insignificant compared with the difference that exists in the cost of getting coal when the operations are conducted by a thoroughly competent person, and by one who is incompetent or neglectful of his duties, the wonder is that this step has not been taken long ago.

It is admitted on all hands that the colliery managers of this country are very incompetent as a body, some possessing scholastic and scientific attainments and not the slightest practical knowledge. This class of colliery managers, although bearing the name, are in reality no managers at all, but depend upon the judgment of subordinates, and may fairly be said to manage by proxy. This class is extensively represented by individuals placed in their position by favouritism or influence, or they are relatives of the proprietors, and, as if the duties of colliery manager were insufficient to require the undivided attention of one person, they generally mix up the duties of corresponding clerk and cashier with those of manager—duties as alien from each other as those of the mathematical instrument maker and the surveyor. There is another class of colliery managers, only one grade above the miners they direct in point of intelligence, and whose sole ambition appears to be to send out the most coal they can in the least time, and avoid paying the miners for any extra work they happen to have performed beyond that of getting and sending the coal to the main wagon-road. These two classes of colliery managers are, in a

measure, necessitated to adopt the plan of screwing down the workmen to the utmost, in order to compete with those whose superior judgment enables them to dispense with the necessity of proving by experiment the best way of conducting operations.

If all the material used and cut to waste at collieries so managed could be valued, or heaped together, and the facts presented to view, it would have a salutary effect upon those proprietors who employ such talent. And yet this is as nothing compared with the amount wasted in doing work that is worse than useless, and in many instances doing the same work twice over. This is nothing unusual, as will be seen from the following remarks. A short time ago I visited a colliery, and whilst looking over it I saw an incline tramroad that had been cut a considerable distance to take the coal from a new pit; the pit frame, tiplers, &c., had been put up, and the necessary convenience made for loading the coal, was discovered when the wagons were attempted to be put under the tiplers that either the road was too high or the tiplers too low. I enquired from a man who was taking the rails up, with a view of lowering them, how the oversight had occurred, and what the proprietors would say if they knew it? He replied, "Oh, it is very well; this is only the second time of it being done. I have known work done three or four times over at this colliery before it could be made to answer."

Sometimes collieries are managed by viewers, who have a great number of collieries under their charge. It is not many weeks since it was stated upon the best authority that there are viewers who have collieries under their supervision that are raising 5000 tons of coal per day. Surely, if men can be found with brain and mind capacious enough to keep the thread of the workings of so many collieries in their mind's eye, and show themselves equal to the task of successfully managing so many collieries, besides spending one-half of their time in travelling and attending to other business, they must be pre-eminently fitted for managing collieries that raise 500 or 1000 tons per day, and with the advantage of being resident upon the spot. So long as collieries are managed upon such principles, it is mere mockery to speak of science having attained its limits in colliery management, and a libel upon common sense, justice, and reason. The most clever, indefatigable, and active-minded man that ever lived is unequal to the task of keeping in his mind the information necessary for the successful management of collieries producing the quantity of coal spoken of, whilst it would be equally impossible to perform the physical labour required. I do not suppose that much difficulty would be experienced in meeting with individuals who would undertake the responsibility of managing collieries producing 10,000 tons of coal per day, providing proprietors would offer a suitable and tempting bait. It is truly surprising to see with what avidity and eagerness men seek to hold situations when they must be fully aware that they neither possess the necessary qualifications nor tact for fulfilling the duties required of them. It is no uncommon circumstance for 400 or 500 applicants to apply for a situation of colliery manager in answer to an advertisement. Not 10 per cent. of the persons who applied for a situation of colliery manager a short time ago could in all probability have managed an extensive colliery at all, if left to themselves. And I am speaking on the safe side when I say, from all that could be learned of the applicants from their letters, &c., not 2 per cent. of the number were capable of performing the duties of colliery manager in a manner that would have done them credit.

It is not only very wrong but wicked for men to seek to hold situations they are not qualified or fitted for, when the lives of their fellow-creatures depend upon the due performance of duties that they cannot by any possibility perform. The duties of a colliery manager, if I entertain correct ideas upon the subject, are both numerous and somewhat difficult of being performed. I deem it essentially necessary for the manager to be on the works each morning before labour commences. If the works are concentrated, it gives him an opportunity of seeing all that is going on, and sets an example to the officials under him. If the works are scattered, he can pay his morning visit to each portion of them in turn. If he is always on the works, or even expected, the men will not be seen straggling to their work half an hour or so behind time three or four mornings a week. He should encourage the workmen under him to inform him of any danger that may exist, and not to treat them so that they are afraid to speak of anything they see going wrong for fear of offending him or the officials placed between him and the workmen. No one abhors tale-bearing more than myself, but when the interests of the concern, or the safety of the workmen, are endangered by silence being maintained, receiving communications from the workmen upon such subjects cannot be classed under that head. So soon as he is apprised of any danger existing, he should lose no time in having its source removed, as running risks will never make a colliery remunerative, if it is not so without. A colliery manager should examine all the underground workings from time to time, at such intervals as to never lose sight of what is going on underground, any more than above. He should never place too much confidence in the statements of others, when he has an opportunity of examining for himself.

The physical exertion and risk necessary to undergo in making underground inspections, and the general uninviting appearance of the mine, act as the greatest barrier to scientific men becoming better acquainted with underground operations. If a colliery could be examined glove in hand, and without soiling the fingers and apparel, or daylight be introduced into the mine, we should have our collieries far better managed than at present; but as it is simply impossible to take away the risk and exertion consequent upon the examination of a mine, it is important that all who hold such situations should be prepared to comply with the inconveniences, &c., of making frequent inspections in a manner that will admit of no doubt of the works being both safely and systematically conducted.

It is the duty of the colliery manager to either dial the workings, or see that a proper mineral survey is made at stated times, and that the whole of the workings are mapped upon a suitable scale. It is the duty of a colliery manager to make himself conversant with all the faults, strata, and peculiarities of the district he is located in, if any peculiarities exist, so that he will be enabled to avoid spending money in the fruitless effort of trying to find coal where it does not exist, or only at inaccessible depths. He should study economy in all its bearings; more depends upon the economical working of a colliery than most are aware of. Attending to small items of outlay, and to the material used at a colliery, will often make the difference between its being remunerative or otherwise. All materials should be used up or disposed of. I have known scores of pounds worth of materials to lie at collieries for such periods that, had they been converted into money when they became useless, it would have reproduced them. I am quite aware that it is sometimes convenient for managers to keep their old lumber, and make it appear in the books as useful plant, in order to show a fictitious profit, or bolster up their own credit; but this only adds evil to evil. It will generally be found that where no regard to economy is paid the workmen are less cared for, and every advantage is taken of them that can be. A workman can only have justice barely meted out to him; if anything more be done for him, in the majority of cases, he will take advantage of those placed over him.

A colliery manager should purchase most of the articles used at a colliery, and what he does not purchase he should examine and see for himself that everything is bought at the best market. A great evil appears to have found its way into this department of colliery management, by tradesmen making presents to or bribing (for it is nothing better) those who have the power of giving orders. I have frequently been pressed to receive presents from tradesmen, and when I have remonstrated with them for the want of principle they have displayed in offering bribes, their invariable answer has been—We could not do business at all at many collieries if we did not act so. Wherever this system is practised it must be attended with great evils, for the proprietor must pay to the tradesman what he gives to the manager; not only so, but the tradesman sells that which he otherwise would be unable to do—an inferior article—probably something that the security of human life depends upon; the manager sells his independence to the tradesman the first time he receives a present. How men placed in such responsible positions can be found to barter away their own independence, and act the part of a knave towards their employers, and in some cases place the lives of the workmen in jeopardy, seems strange; for my own part I would not sell that spirit of independence that I possess for all the filthy lucre that could be offered me. I had intended to have entered more fully into the duties of colliery managers, but find that my paper has already exceeded its length. In conclusion, I offer the advice that one and all of us use our best efforts to remove the stigma of ignorance and incompetency that has attached itself to our characters as a body, by paying every attention to the acquisition of knowledge bearing upon the management of collieries, either directly or indirectly; and let employers give every necessary encouragement and assistance in aiding the present colliery managers in improving themselves, and fitting the rising generation for becoming better qualified than even the most favoured of the present generation are; and the necessity for legislative interference will be found to decrease as intelligence amongst the managers increases. JOS. GOODWIN.

VENTILATION OF COLLIERIES.

SIR,—In reference to the plan of forcing air into mines by means of air-pipes, allow me to say that the idea is very old. I am not aware of its having been tried, but for the sake of satisfying all such mistaken philanthropists, I hope Mr. Hughes will succeed in getting it thoroughly tested. Allow me to ask that gentleman whether he has personally ever examined a large pit in full operation, seen the pillars in process of removal, and the adjoining goaf edges. As a practical man, it is to me very absurd, setting aside all questions of cost, which are nevertheless of great importance. C. V.

MINING MACHINERY.

SIR,—This subject being just now one occupying public attention, may I ask you to publish the following remarks, which I have extracted from a lecture delivered by Mr. James Sims, the celebrated engineer of Redruth—than whom few are more competent to give an opinion? MINER.

"Respecting the operations underground by the working miners, there have been occasional enquiries. Why not bore the ground; or rather the rock, by steam-power? I fear that mechanical genius cannot do much for them, it being a peculiar sort of work, having to bore holes in almost every direction, and, therefore, the inconvenience of placing or fixing a machine would be great, or if it could be brought to work, the idea of placing a steam machine underground would be out of the question. The only thing that has occurred to me as at all likely to do would be to have a strong air-tight vessel at the surface, into which common air should be forced by any available surface power, such as the pumping-engine, whim-engine, water-wheel, or any other power, and to pump up such a pressure in the air vessel as might be necessary to work a small machine underground, by compressed air acting on the top of a small piston; the power of this air should compress the air under the piston, and the instant the air above the piston is exhausted by a small valve for that purpose, the compressed air underneath the piston would strike a very forcible blow. The pipes for conveying the air from the air vessel at the surface, where they are fixtures to be iron, and where movable to be gutta percha. The air discharged at every stroke of the little machine would, no doubt, be of considerable benefit to the miners. I wish it to be understood that this is merely a suggestion, and, if it does no good, it is probably harmless."

VOLCANIC ACTION.

SIR,—Having observed volcanic (igneous) phenomena accompanying the falling and sliding of immense masses of rocks,* we are compelled to ascribe at least some portion of the igneous phenomena that accompany the ejection (by volcanoes) of considerable masses of rocky, &c., substances, likewise to the frictional heat which arises from the motion, and is in proportion to the bulk and the rate of motion of such masses. Altogether, if we attempt to estimate the amount of heat that may be created by friction, by chemical action, ignition of pyritous substances, of hydrocarbon, solidification of water and gases, &c., and take into consideration the immense quantities, met with almost everywhere, of such "pyrophoric" substances, we ought, indeed, almost to be surprised that the heat which accompanies real volcanoes is not much greater than it really is, and that hot springs and "volcanoes" emitting water and mud are the rule, and such as emit molten rocks the exceptions; and, considering the progress made in natural philosophy, in chemistry, &c., it is indeed surprising that there should still be so many geologists who prefer being mystified by considering the assumption of a "central fire" as a fundamental hypothesis in "orthodox" geology. Believers in that "fundamental" hypothesis must certainly find it rather strange that Professor Ehrenberg should have discovered organic remains in the products of volcanoes of almost all parts of the world, such remains, amongst others, being silicious skeletons of water plants.

On a future occasion I shall attempt to give a few remarks on the mineralogical composition of, and other particulars relating to, volcanic products. G. J. G.

VOLCANIC ACTION.

SIR,—I have been much interested of late in reading several articles on Volcanic Action in the Journal, and the discussion between Messrs. Hopkins and Barnes. It may perhaps throw some light on the subject to refer Mr. Barnes to a recent paper read before the British Association at Manchester by my friend, Mr. Robert H. Scott, on the Origin of the Granite of Donegal, where he will find that recent chemical analyses tend to prove that it is impossible that that granite can have been subjected to the action of fire, and that another cause must be sought for to account for the various geological features presented there, and confirming Mr. Evan Hopkins's assertion that the igneous theory is about (time for it) to give way to more scientific and reliable grounds for accounting for the several changes in the crystallisation of the primitive rocks, now classed under the convenient heading of metamorphic. As this subject is one of deep interest to practical miners, I shall venture a few observations which have occurred to me in a recent visit to the Giant's Causeway, and shall be obliged if some of your correspondents will favour me with an answer to two questions—first, the chemical analyses of the basaltic porphyry forming the different beds; and next, the supposed origin of the chalk formation, shown on the geological map as underlying it? Being myself convinced of the whole formation here being simply the decomposition and fresh semi-crystallisation of the bands of porphyry forming the eastern portion of the primitive rocks of the North of Ireland, traced through the counties Derry, Monaghan, and Armagh, I shall be glad to be favoured with any information as to the supposed origin of the volcanic forces thought to have caused the igneous formation of the basalt, and their position. As to the igneous iron formation, beds of which, both magnetic and otherwise, are found in this district, having raised some thousand or tons of iron ore, formed entirely from aqueous sources, I am more inclined to favour the views of Mr. Evan Hopkins. As to the question of its magnetic qualities, it is quite unconnected with its igneous or aqueous origin.

"A. B.," in the letter following "Volcanic Action" in the Journal of Aug. 31, states that he is not a chemist, and yet proceeds to give a chemical theory capable of producing any results, and gives an example of quartz veins losing themselves in the granite. Now, by reference to Mr. Scott's paper, he will find that this is only one of the various phases of the chemical changes that occur in the production of granite. The remainder of the letter of "A. B." shows the power of the imagination when excited by Plutonic fires. GRANITE.

MINING IN FLINTSHIRE—THE IGNEOUS THEORY.

SIR,—In the Journal of Sept. 7, a correspondent calls attention to the mines of Flintshire, and gives some account of the Talargoch veins, near Prestatyn Station. It just reminds me it is one of the most apt illustrations in limestone for throwing some little doubt on the igneous theory. The vein is in mountain limestone, in one of those beautiful crops on the sea coast. If you go back a few miles just above Cwm, where the overlie of the green rock shales join the limestone, you meet with two north and south courses, with a small east and west vein intersecting them, in which, on the walls of the lode, by the action of carbonic acid, the lime beds are changed into iron ore. The vein carries iron ore, the courses carbonate of lime. This, in the first place, is chemical, any other heat would reduce it to lime. The courses carry off the small lode, and following them on the surface of the limestone, they are again intersected by the Talargoch lode, which is magnetic west, carrying lead, zinc, and iron ore, or rather lead in a matrix of carbonate of lime and clay, with masses of carbonate of zinc. At the intersection Talargoch carries the two courses west, and both join until they reach the stratum skirting the limestone. During their junction, and until they reach the adjoining shales and gravelly stratum, where the best working part of the lode is found, they spread out, and on the north wall have large reaches or pockets of clay and cubes and stones of lead ore (similar to the reaches in the carbonate of iron ore veins). No doubt it will go down with equal returns as deep as the limestone, which is, as far as we know, about 500 yards, without its shales. The courses when they come to the solid strata take their own strike again, magnetic north.

Had there been any sulphurous or igneous action, here certainly was the place to show it. In this open intersection of two large lodes, one coming from the coal measures with changes in the strata, must, if there existed anything of the sort, made way for an exhibition of its forces. The lodes show no sign or appearance of any such heat, neither does the stratification through which they pass. Chert is always found on the edge of beds of limestone in similar veins, and the whole is purely a chemical combination in their matrices of lead and zinc; and it would certainly be a great stretch of the imagination to suppose any combination of sulphurous heat could have the slightest affinity, or could in any possibility be combined with pure carbonates in forming metalliferous lodes, caves in veins, even supposing such a thing did exist, but, like "the upheaving of the superincumbent masses," it most certainly is only imaginative.

I would recommend the "Flintshire Miner" to go to the Little Orms Head, and examine a north and south course passing through that crop of the limestone. It is upwards of 20 yards wide, the matrix carbonate of lime. If he can say what underlie it has, what throw, the ore it carries, what are the strata between it and the sea to the east, which wall of the

* One of your correspondents, in No. 1360, forcibly connects my remarks on frictional heat with trap-dikes: I hope, for his own sake, that he will not take similar liberties with phenomena observed in nature.

vein is down?—all necessary principles for miners to exercise their imagination, without troubling themselves about internal heat, aqueous and igneous action, and like nonsense, that is only heard of from the imaginative brains of men who know nothing about his business. Just look at the Exhibition at Manchester, if he knows anything of the sandstones and coal measures; the *saunders* description of them, and the conglomerates, will be quite sufficient to convince him it is really imaginary. I do not see why the "Flintshire Miner" should have any objection to mining further west, or south-west. Some of the veins are quite equal to Talargoch, and precisely the same matrix and mineral. Certainly, at present, some of the landed proprietors will not grant leases, because it spoils the beauty of their estates, but that is not the case in all lordships, where veins to surface show very good prospects—in fact, are the same lodes in continuation.

Did your correspondent ever hear of or see a place where "carbonate of lime was extracted from a solid mass, and replaced by iron pyrites?" With your permission I will notice this in my next.

G. ATTWOOD.
Great Salkeld, Penrith, Sept. 17.

TREATMENT OF POOR COPPER ORES.

SIR,—In last week's Journal I observe, in your Notices to Correspondents, an enquiry respecting my patent process for treating ores containing copper, tin, silver, and sulphur. It is well known that ores are sometimes unevenly balanced in their constituents that it is difficult to determine whether they can be most profitably dressed for copper or tin, and a considerable amount of the cost is incurred in calcining such ores. This subject has received much of my attention, and I have found that such ores may be profitably treated by grinding and calcining with common salt. The course I pursue is to grind the ore sufficiently fine to pass through a ten-hole sieve. I then calcine the ore until there remains only about 4 per cent. of sulphur; I then withdraw the ore from the furnace, and mix it with rock salt ground fine—for every 1 per cent. of sulphur remaining in the burnt ore I add 4 per cent. of salt, and calcine the mixture. The furnace I use has two chambers, with one fire; the raw ore is put into the chamber furthest from the fire, and the partially calcined ore and salt is placed in the chamber nearest the fire. When the mass ceases to give off chlorine, or hydrochloric acid, or sulphurous acid, the process is complete. The calcined mass is then put into vats, and covered with hot water, which will dissolve the chloride of copper and chloride of silver, when these metals exist in the ore, which is almost universally the case in the copper ores of Cornwall, the absence of silver being the exception. Having obtained the liquor, which will be of a green colour, and perfectly clear, I run it into a second series of vats, in which scrap iron has been placed, the silver and copper is precipitated; the residue is then dressed for tin. It will be found that the tin ore will be exceedingly pure; in fact, equal to the finest stream tin. I strongly recommend my brother Cornishmen to a careful consideration of the subject I have endeavoured to elucidate. When I apply my process to the manufacture of sulphuric acid, I isolate the second chamber, and connect it with a leaden chamber in the usual manner.

JOHN LONGMAID.

AURIFEROUS STEEL.

SIR,—In last week's Journal I find a rejoinder from Mr. Webb to my letter which appeared on Sept. 7, in which he is pleased to say that my answers are "a series of bold assertions." I beg to inform that gentleman that my "bold assertions" are all based on actual fact—iron made on a manufacturing scale, examined, tested, and its improved qualities admitted by some of the most eminent manufacturers of iron and steel in the United Kingdom. It has also been submitted to chemists of the highest reputation, it has been analysed by gentlemen well known in London for their ability, and my auriferous alloy has been pronounced to be possessed of qualities hitherto unknown.

In reply to Mr. Webb's remark, "I defy him to produce a ton of his alloy which shall correspond within 30 per cent." This is indeed a very bold assertion, and added to his other bold assertions, proves that he knows but little of the subject he has undertaken to discuss. My patent alloy has all the ordinary qualities of iron and steel, it presents the same homogeneous appearance, it has increased ductility, tenacity, and density, which is capable of undeniable proof.

Mr. Webb is rather unfortunate in his arithmetic when he asserts "he proposes an alloy containing sixty-seven one millionths of an ounce (I presume of gold) in each ounce of iron;" these proportions do not correspond with one in one hundred and forty (140,000) thousand, which he rightly stated a few lines above the proportions I use, and which exactly correspond with $\frac{1}{4}$ oz. to 1 ton. Now, sixty-seven parts of gold to one million parts of iron is equal to about 2.69 ozs. gold to the ton. Mr. Webb then goes on to state that I also proposed to apply sixty-seven one hundred millionths of gold, which is a much less quantity than I recommend.

Again, Mr. Webb boldly asserts "the only advantage that can accrue from Mr. Longmaid's process is because the addition of the gold is insufficient to deteriorate the metal, for it should be remembered that he infers the alloy of pure iron and pure gold." Now, this inference, this bold assertion, has no foundation whatever, except in Mr. Webb's fertile imagination. I am well aware there is no such thing in commerce as chemically pure iron. Mr. Webb also boldly asserts there is great difficulty in mixing iron and gold; I beg to assure him the difficulty he has imagined does not exist in fact, nor is there any extra cost beyond the cost of the gold, and its preparation before it is put into the furnace; and for Mr. Webb's further information, it is not the practice in the manufacture of iron "to have many consecutive meltings"—in fact, after the metal has passed from the puddling-furnace, it is never melted.

Mr. Mushet and Mr. Bessemer are gentlemen who have enlarged our knowledge of the manufacture of iron and steel, and I most heartily wish them all the honour and profit to which their services in the cause of science so richly entitle them.

WILLIAM LONGMAID.

AURIFEROUS STEEL.

SIR,—Mr. Webb wishes to know what would be the effect of adding 67 parts of titanium to 999,933 parts of steel; there would, no doubt, be an improvement in the quality of the steel. Similarly when a fly settles on a horse's back it adds to the load sustained by the horse, but the improvement in quality in the one case, and the addition to the burden in the other instance, are alike too insignificant to be estimated by either human or equine perceptions. When I first read Mr. Longmaid's patent I supposed that it was a burlesque upon the numerous steel and iron patents, my own amongst the number, *quorum magna pars fuerunt*, which have been taken out, and I thought his recommendation to put as little as possible of the precious metal into the steel was an excellent idea, and one which could not be too strictly adhered to. But it seems Mr. Longmaid is in earnest, and has been the first to apply the homeopathic doctrine to metallurgical processes. There is a pleasing originality about the new process, which is refreshing to contemplate. Other inventors try to amass gold out of their steel operations, but Mr. Longmaid boldly strikes out a new path, and invests his bullion in the steel itself, but wisely putting in very little, and as wisely inculcating on manufacturers the indisputable truth—that the less you put in the better. It is quite certain that steel owes its properties, in contradistinction to iron, to the presence of alloys or mixtures of foreign matters, existing in minute proportions. Thus a careful analysis of cast-steel made from the best Danemora iron showed that 3½ lbs. of carbon communicated the hardening property to 1000 lbs. of this steel, the steel would have been merely semi-steel, and incapable of hardening; and had 7 lbs. of carbon been present in 1000 lbs. of this steel, the steel would have been so hard, and so closely allied to refined metal, as to have been unworkable. So that very small proportions of carbon affect very powerfully the value and properties of steel. Titanium also has a marked effect upon steel, even more powerful than that of carbon, and 1 lb. of titanium in 1000 lbs. of steel would very perceptibly elevate the quality of that steel, but when the alloy is confined to millionths parts of the steel the improvement can only be estimated by the excited imagination of a self-deceived but enthusiastic inventor.

Perhaps one of the most remarkable discoveries of the present day is that of Mr. Bessemer—that 1 lb. of silicon, in alloy with 2000 lbs. of Bessemer metal, will make the latter be quiet in an ingot mould, in place of boiling over. Here, as in Mr. Longmaid's process, Mr. Bessemer wisely prefers to put in very little of his specific; and here, likewise, the policy of a homeopathic dose of silicon is unquestionably sound. Unfortunately

for Mr. Bessemer's discovery, the fact remains that if manganese without silicon be added to Bessemer metal the metal lies quiet in the mould, but when silicon is added without manganese the metal boils over. Now Mr. Bessemer adds both metals together—an alloy containing a great deal of manganese and a very little silicon; and it really does appear just possible that the manganese, and not the silicon, is the potent spell that exercises the rebellious metal in this case. However, it would be satisfactory to set the question at rest, and as there is a very abundant alloy of iron and silicon now in the market, and which does not contain manganese, I would suggest that Mr. Bessemer should try the soothing effects of 30 or 40 lbs. of this alloy upon 1 ton of his metal, in place of the manganese alloy. The silicon alloy I allude to is called Cleveland pig-iron, and being rich in the former valuable metal, it will, I have no doubt, prove highly efficacious.

I believe Mr. Webb has been misinformed as to the method by which Mr. Bessemer manufactures his steel. He does not, I think, employ the old system; but in place of that, he remelts the direct Bessemer steel in crucibles with manganese and charcoal, and thus produces an excellent steel, which has been deservedly esteemed for many purposes, though it is by no means equal in quality to that prepared on the old plan from converted marks of Swedish bar-iron.—Colford, Sept. 18.

R. MUSHET.

THE WINDING-UP ACT.

SIR,—In the present state of commercial morality it is patent to the world that when the originators, promoters, and directors of limited companies have obtained the purchase consideration, and made all they can out of the concern, if the undertaking does not suit their private interests, or answer the sanguine statements put forth in their prospectus, reports, and advertisements, they wish to avoid the payment of calls, be free from the responsibility and anxiety of management, and as they are deeply interested in *hushing up* the affair, avoiding the courts of law, and escaping publicity, they have recourse to a voluntary winding-up of the company; they get themselves and their officials appointed liquidators, they make a call on the contributories, they sell the property of the company at a mere nominal price to a nominal purchaser, in order to make a more favourable arrangement among themselves for future operations, they close the business, and the merciless *Winding-up Act* leaves the deluded shareholders *minus* all they have paid; and if those directors have kept within the parliamentary enactments, although the shareholders lose all, they have no remedy. I omit, for the present, all comment upon the conduct of these honourable gentlemen, and restrict myself to the following observations, to which I invite the attention of all persons who, like myself, have suffered heavy pecuniary loss by placing confidence in directors, in the statements of a prospectus, and in the weekly flattering reports published by the secretary or officials of a company.

Let the shareholders understand that the prospectus and reports put forth by the directors of a public company, limited or unlimited, are, in fact, a *warranty*, and all shares applied for, or subsequently purchased, are accepted under the terms and conditions of a contract set forth in the published advertisements of the company, from which no departure can arbitrarily be made without invalidating the whole agreement; and if the advantages or statements offered to the public prove untrue, the allottee or purchaser, having paid his money, is protected by the law; and so soon as the falsehood or deception is exposed he has his remedy. Every prospectus, every statement, and every report emanating from the directors, secretary, manager, or captain of a mining company, must maintain perfect truthfulness; and every person becoming a shareholder on the faith of these public documents being true, enters into a valid and binding contract with the company, and any deception or dereliction in the performance of the terms or conditions by the said company is a release from the payment of calls in favour of the shareholder, and he may recover the money he has paid under false representations. A public company may be altogether *bona fide* at the beginning, but the directors may tamper with their constituents by not carrying on the business of the company in a proper manner, or by doing it under circumstances known to be improper or unfavourable, and in this way the shareholders may be victimised, in which case it is right they should know the law provides a remedy.

A VICTIM.

PATENT ABUSES.

SIR,—Patent matters being at present much under discussion, I shall offer a few remarks upon one of the worst abuses of the patent system,—I mean the granting of letters patent for the same invention to different parties at different times. I shall first detail a most important case of this kind, wherein the true and original inventor has had the fruits of his labours snatched from him, and bestowed upon a subsequent patentee. On Sept. 16, 1855, Joseph Gilbert Martien filed a patent for decarbonising melted cast-iron, —i.e., for reducing it to the state of malleable iron or steel by forcing air or steam underneath the surface of the cast-iron, so as to rise up amongst the particles of the cast-iron, and penetrate and search every part of the liquid metal. Now, this claim is so simple and palpable, that no rational man could for a moment misinterpret it; for, as the air does rise up and penetrate and search every part of the liquid metal, it must decarbonise every part or particle of that metal, by virtue of the affinity of the atmospheric oxygen for the carbon of the cast-iron. In other words, if the patent claim of J. G. Martien is carried into effect, the metal so treated must be decarbonised, and therefore, brought into the state of steel or malleable iron. This is a metallurgical fact, which neither legal chicanery nor patent quackery can set aside or overthrow. Therefore Martien's patent process, filed Sept. 16, 1855, accomplishes, when carried into effect, the conversion of melted cast-iron into steel and malleable iron. All this, which is perfectly plain and, indeed, self-evident, ought to have precluded the grant of letters patent for this identical process to any subsequent claimant. However, it does not appear to have been so; for, on Oct. 17, 1855, they granted to Henry Bessemer a patent for "forcing currents of air or steam into and amongst the particles of melted cast-iron, until the metal so treated is thereby rendered malleable." That is to say, Bessemer claims the forcing of air or steam amongst the particles of melted cast-iron, so as to reduce the said cast-iron to the malleable state; but if air be forced amongst melted cast-iron, so as to penetrate and search every part of that cast-iron, that cast-iron must necessarily be decarbonised, and be thereby rendered malleable. Conversely, if air be so forced amongst the particles of cast-iron until that cast-iron is thereby rendered malleable, it is manifest that the air must have penetrated and searched every part of the melted metal, otherwise the said metal would not have been decarbonised so as to be rendered malleable. But Martien especially points out that the air is to be applied so as to penetrate and search every part of the melted cast-iron. Bessemer simply points out the same thing in different words. With him the air is to be applied until the cast-iron is rendered malleable; but whenever the air has had time to "penetrate and search" every part of the melted cast-iron, that cast-iron is rendered malleable; and this is what Martien claims, and he is, therefore, beyond a doubt the original inventor, and the lawful and rightful owner of the pneumatic process. This is, perhaps, the worst case upon record of the injustice of granting a patent twice over.

There is another and more recent instance well worthy of notice, and which strikingly illustrates the careless manner in which patents are granted, and the gullibility of the public. On Sept. 22, 1856, I took out a patent for adding to Bessemer metal a metallic compound or alloy, composed essentially of iron, manganese, and carbon. My object was, first, to cure the redshortness of the Bessemer metal; and, secondly, to prevent the occurrence of cells or honeycombs in the ingots of Bessemer metal; and which redshortness and spongy character rendered the Bessemer metal utterly worthless, even as scrap iron. I carried my process into effect, and with perfect success, early in 1857. My claim was for the use of a metallic compound consisting essentially of iron, manganese, and carbon, by whatever means or method such compound had been or was prepared, either melted, or heated, or in the cold state, to Bessemer metal; and I pointed out that the compound was procurable in abundance by smelting manganese ores of iron in a blast-furnace. Such a compound has for centuries been made in Prussia, and its analysis by a late eminent chemist gave—iron, 89.15; manganese, 5.03; carbon, 5.12; silicon, .50—99.80. There were also some traces of copper, cobalt, and phosphorus. This, then, was the compound I preferred to employ, as being readily procurable at a cheap rate of cost; and it was a metallic compound, consisting essentially of iron, carbon, and manganese, and containing, like all other cast-irons, a little silicon. Now, in place of using the compound thus ready manufactured and cheaply procurable, I might have set common sense at defiance, and have proceeded as follows to manufacture a metallic compound or alloy of iron and manganese, containing also carbon and a little silicon:—Take 30 to 70 parts of pure iron ore, and 50 parts of grey or black oxide of manganese; or take iron ore containing manganese in place of the foregoing, and if there is no silica in them (but there always is in all iron ores) add 5 parts of quartz, then add 40 parts of anthracite coal, and grind the whole of this hocus pocus mixture under edge runners; then put the mixture into a converting-furnace and decalcise it; then bake it out and mix it with pitch; then melt the mixture in a crucible, into what? Why, into a compound metallic alloy, consisting essentially of iron, manganese, and carbon, and containing also a little silicon. But in place of melting this farrago in a crucible, I may put it into a pot with a tap-hole to it, and keep filling up the pot as the metal flows out. I may also make the pot higher and higher by building on rings of fire-clay to increase its height, and I may do this till it becomes as high as a blast-furnace, and then I may put on a blast and make my pot like a blast-furnace altogether, and I may now cease to decalcise my patent farrago beforehand, for in the blast-furnace the ore are all decalcified in the upper part of the furnace. In short, step by step I shall have arrived exactly at the point at which the Prussian ironmasters had arrived long before I was born; for they manufacture a compound metallic alloy of iron, manganese, and carbon, containing a little silicon, by operating in a similar manner upon iron ores, oxide of manganese, silica, and carbon in their blast-furnaces. But as I did not wish to make myself ridiculous and my patent void, by pointing out any such absurd and roundabout method of preparing the compound, I was content to prefer to use that metallic alloy or compound prepared by smelting its elements in a blast-furnace. An alloy of iron, manganese, and carbon, containing a little silicon, can only be prepared from its elementary constituents by decalcifying and melting them; and when they are decalcified and melted they produce the same species of compound, whether treated on the large scale in a blast-furnace, or on an experimental scale in a crucible. Now, having patented the use of this alloy, no matter how prepared, as far back as Sept. 22, 1856, I thought myself secure from the assaults of metallurgical quacks and scheming patent mongers; but I was deceived. On Feb. 1, 1861, Henry Bessemer obtained a patent for the use of a metallic alloy of iron, manganese, and carbon, containing also a little silicon, and in every respect identical with the compound the use of which I claimed five years ago, and for the self-same purpose; and in order to disguise the thing, if possible, he tells the

public that he prepares the alloy in the preposterous manner I have detailed. This alloy of iron, carbon, and manganese, and the usual impurity of a little silicon, which is always present in such an alloy, Mr. Bessemer puts into his Bessemer metal in a solid but highly heated state, which is precisely my claim in my patent of Sept. 22, 1856, and he tells the public a cock-and-bull story about 1 lb. of silicon in 2000 lbs. of steel causing the metal to be quiet in the mould, whereas it is the manganese, and not the silicon, which checks the tendency to honeycomb. The only effect of introducing silicon into Bessemer metal without manganese would be to cause all the ingots to crack to pieces, as Mr. Bessemer may prove by putting a few pounds of common silicated pig-iron into a batch of his metal. Thus, not only has my patent of 1856 been granted over again to Mr. Bessemer, but it has passed the Patent Office, though he claims not merely a useless but a hurtful addition to his metal, and which claim alone ought to have ensured the rejection of the application. When the modesty and original genius which so often characterises great inventors again permit Mr. Bessemer to re-patent any of my patents, I hope he will not send them forth disguised in such threadbare garments as the patent I now allude to. I am fully aware that his position and existence as an inventor in steel and iron depends, and will depend, wholly upon what he has picked up, and what he may hereafter glean out of my patents. And if he can stoop to this kind of eleemosynary celebrity, I do not grudge him the crumbs of my inventions; but he should be content, and employ my ideas privately; it is rather too barefaced to patent them over again, after an interval of only five years, and claim them for his own.

There is a reform wanted in Patent Law, which should render it impossible for any man to re-patent the claims of a preceding inventor. Another desirable step would be to compel all inventors to let licenses to parties applying for them; and the most desirable amendment would be that piracy should be deemed in the eyes of the law—what it is in reality—*theft*, and should be punishable by penal servitude, and a confiscation of the property of the thief. There would then be security for an inventor. At present there is scarcely any real security; and the inventor is not only unscrupulously robbed, but in many instances the stolen goods are shamelessly paraded before his eyes by the pirate. The law has provided a remedy, no doubt, but the remedy is, in most instances, worse than the disease. In a subsequent letter I purpose showing the manner in which Martien's process may be brought into general use, so as wholly to supersede the modified method by which it is at present carried into effect by Mr. Bessemer.

Colford, Sept. 16.

ROBERT MUSHET.

MR. BORLASE'S BUDDLE.

SIR,—Your Truro Correspondent, in his article contained in the *Mining Journal* of Sept. 7, refers to the bubble lately set up in Providence Mine, and which he calls "the independent discovery of Capt. W. Hollow, jun." I wish to correct that statement, by informing your readers that the bubble is the patented invention of Mr. Edward Borlase, now at Wheal Margaret, near St. Ives; and that the Providence Company, through their purser, Mr. Higgs, have purchased of Mr. Borlase a license to use the bubbles in that mine. Mr. Borlase has also erected one at Wheal Margaret, and is now engaged in erecting another there. In the *Mining Journal* of the 14th inst. it is called "Zenner's rotating frame;" Mr. Borlase is agent for Zenner's bubble, but the erections at Providence and Wheal Margaret are his own invention, and of a different description.

Truro, Sept. 18.

A LOVER OF FAIR PLAY.

BRAZILIAN MINING COMPANIES, AND THE SLAVE TRADE.

SIR,—The steps taken by the British and Foreign Anti-Slavery Society are certainly calculated to create anxiety in the minds of shareholders in all companies engaged in working mines in Brazil. By an advertisement in last week's *Journal*, the society cautions the public against embarking in a new Brazilian mining company just formed—the East del Rey—reminiscent intending investors that Lord John Russell has informed the British Consul at Surinam that "British subjects holding slaves in any foreign country will render themselves liable to criminal prosecution whenever they shall be found within British jurisdiction," and that "it is the determination of Her Majesty's Government to enforce the statutes," which absolutely prohibit British subjects from dealing in or from holding slaves under any circumstances whatever. The position of such companies as are working mines in countries where slavery exists is regarded by many shareholders to be this—If the slaves be held by the company, the shareholders must ever be prepared for the criminal prosecution referred to; and if the slaves be held by a servant of the company not within British jurisdiction the whole of the company's property is at the mercy of an individual upon whom English law cannot be brought to bear.

A. B.

MINES AND MINING IN SPAIN.

SIR,—Having noticed some remarks under this head in the *Journal* of Aug. 10, from your able correspondent, Mr. N. Ennor, I will, by your permission, offer a few brief comments thereon. First, as to the passport system, I would beg to say that I have been in this country now nearly five years, during which time I have visited England once, and travelled some hundreds of miles through this the North of Spain, and as yet my passports have not cost me as many shillings as Mr. Ennor names his being charged pounds; and this, too, be it remembered, by one who on his arrival in this country did not know a word of the language; but by rising early in the morning, and studying for an hour now and then, I have made myself sufficiently master of the language to be generally understood, the lack of which, and the bore of interpreters, may be, in my opinion, the chief cause of Mr. Ennor having been so overcharged. If Mr. Ennor, on his next visit to this country, will visit this the north part I shall be most happy to show him a little copper and sulphur mine, in which the lode has never exceeded on an average 1 ft. wide, and embedded in a hard blue kyllas, that he paid all costs of working, and left a small profit, and still continuing to do so, under disadvantageous circumstances, which I should be glad to explain; as also that of showing Mr. Ennor wine bibbles, water-barrels, shovels, picks, and wheelbarrows in general use, as much as can be expected in a country where the natives have not been accustomed to such kind of tools; hence the prejudice in favour of the tools these people have always been accustomed to use to be contended with. It is next to impossible for any mine agent arriving in this country to surmount these difficulties, by introducing a new mode of working, all at once; I have found it the best plan to introduce the English mode of working by degrees.

With regard to the difficulty spoken of by Mr. Ennor in obtaining concessions for mining, I am somewhat inclined to think that he must have been misinformed; or, at least, I can say that I have of late obtained no less than eight different concessions, and at different intervals, without any difficulty whatever. It is, nevertheless, true that in some instances years are allowed to elapse before the royal title to these concessions are obtained; yet this does not prevent working them, nor give any other party a chance to obtain them, provided you are the first applicant, and your application is made in due form. I am fully aware that the Spanish Government should do much more in order to favour this important branch of industry, where such a field for mining presents itself as here, which is highly favourable in every respect; yet it should be borne in mind that, according to the new law of mines, passed in Oct., 1859, there were several steps taken in the right direction. First, the deposit to be paid to Government on obtaining a concession was lowered one-half; all royalties on minerals raised lowered two-fifths; the price of powder one-sixth, &c.; and I have no doubt these things will be lowered still more, little by little. And now, to conclude, I cannot but think that mines, or concessions for them, are to be obtained on an average on equally as liberal terms as in England, and equally good. A better field for mining cannot be found. And also with regard to the Government mining engineers of this country who are appointed over each mining district, I have always found them, as a rule, agreeable and intelligent, and ready to give any and every information relative to mines and mining in general.

North Spain, Sept. 2.

MINE AGENT.

NORTH WALES SLATE QUARRIES.

SIR,—In answer to your correspondents, I am sorry that I could not give them an earlier attention. I thank the "North Wales Slate Quarry Proprietor" for his good wishes and regards. To satisfy him, and the numerous enquirers about the author of the papers, I purpose making a few remarks upon all the slate quarries known to me in Wales, but owing to mining engagements I cannot promise to bring them out regularly.

A remark having been made relative to "Hafod Wryd" by a person who calls himself John Hughes, in the *Journal* of the 7th inst., respecting the statements made in my papers, I beg further to designate that quarry impartially as not a slate one, and to consign it as one of slates. I am controverted as having "received defective information" about the quarry in question. I am not informed about it without inspecting the work myself, and it is my personal knowledge of the quarry that has been embodied in my letter, and not information from others. Similar retorts are often made against "Cymro," but let Mr. John Hughes invoke all his best inspectors to this quarry, and I will formally denounce any dogmas that shall represent it as a slate one. I am quite used to similar affirmations and idle assertions. He further states "that thousands of slates have been sold from the quarry" such a thing may chime well in his own ears, and may lull his conscience to foster a hope that the future may realise his expectations, but to one that has known slate quarries from his infancy (their dangers, and severely felt their accidents) it is nothing more or less than a chimera—a wild fancy, a castle in the air. Slates (so called) as will cover pig-styes or huts in Penmachno, are not the marketable and pure slates of commerce, and the merchant who will purchase such stuff in error for true slate must be very dull indeed.

In answer to the masterly letter of "M. A.," in the *North Wales Chronicle*, I shall endeavor to do the same justice to quarries not yet written upon as I have hitherto done. I quite agree with him that some energetic steps ought to be taken to put a stop to the swindling and plundering so much practised with slate works through false representations. I shall do all I can to root up this spring evil, and shall do all in my power to encourage fair and judicious speculation, and I am glad to find that some good has already accrued from the few remarks made.

CYMRU.

THE NORTH HAFOD SILVER-LEAD MINES.

SIR,—I am happy to have an opportunity of replying to the enquiries of "C. T." as to the geological map issued with the prospectus of this mine. Different people will have different notions as to the lines of the different metalliferous channels of rock running through fields of clay-slate. With reference to the pink zones that I have chosen to represent the bearing channels of rock that cross the lodes, I am supported by finding in one zone the following mines:—Allt-y-Crib, Penycen, Darren, Goginan, Tylwyth, Silver Bank, Blaen Caenant, Frongoch, Pontystwith, Logyfa, Penygist, Glogfawr, Glogfawr, Eglwys-mwyn, and others. I have taken the result of this arrangement of mines to be an order of Nature, and I have followed it as a practical guide in laying down the law, by which anyone may read off the probable existence at certain points of the great masses of lead and silver-lead ore forming the chief treasure of the rocks of Cardiganshire. So far, and no further, have I gone. I have attempted to reduce to an intelligible form the scattered and random reflections that were wont to be flying about on this subject, and I hope in this I have succeeded, for I think no person would maintain that the great untalented belt of mines that I have pointed out, situated about a mile from each other, and running on a line about 60° west of magnetic north, could be the result of accident. I will

not be so uncharitable as to suppose your scientific correspondent, who has treated the matter fairly and skillfully, intended to set Mr. Smyth and myself by the ears, or that another friend, a week or two back, intended to do the same kind of office between Mr. Evan Hopkins and myself. I will just say here that I have the highest respect and friendship for both those gentlemen, to whom I consider the country greatly indebted for their philosophical researches with reference to the crust of the planet we inhabit, and its metallic riches, and if I differ from either of them in any way, I do it with the greatest deference, and many misgivings as to my correctness. In reading the geological condition of the rocks of Cornwallshire from themselves and not from books, I find that the grain of the slate, or length line of the laminae, is nearly the direction that Mr. Smyth takes as that of the bearing strata, but I find no lines of lodes along this line, and I take it to have been the boundary of the range of electricity, or the variation of the needle towards the east, in a bygone era of geological history. The undulations referred to in the paper are another thing, belonging to a different epoch, and are about 60° to the west of magnetic north, if my memory serves, and are parallel to the metalliferous zones, as I have marked them. The landmarks of this great line of action are the Peak of Brecon, Plynlimmon, Cadair Idris, and Snowdon, and the lesser undulations are lateral, and more or less parallel to this; and Mr. Smyth truly says, "the zones of productive mines will be parallel to the axes of these undulations." I am quite sure that Mr. Smyth and I shall have no strife, although his words seem to convey with reference to the north-east bearing of the metallic strata a meaning different to my own; it may possibly be a clerical error, but I would throw before your correspondent the saying of the wise king—"He who passeth by and meddeth with strife that concerneth him is like a man that takes a dog by the ears," but I shall always be glad to give him any information, through your columns, on this or any other geological or mining subject with which I may happen to be acquainted.—*Aberystwith, Sept. 18.* MATTHEW FRANCIS.

LIABILITY OF SCOTCH SHAREHOLDERS IN CORNISH MINES.

SIR,—No doubt can exist but shareholders in every part of the kingdom can be compelled to pay their calls under the Cost-book System, which system has received the special sanction of the Legislature. The effect of the non-payment of calls in the case of the North Downs Wheal Rose is apparent in the advertising columns of the *Mining Journal* of last week. It is to be regretted, for the sake of mining itself, that parties will set the "dog in the manger." In this instance a fearful sacrifice will probably be made, owing to the obstinacy of some shareholders, who profess to have the means, but who object to pay their just claims. Circumstances precisely parallel to those mentioned in the letter of last week, to which I refer, was one of the principal reasons of the stoppage of a promising mine near this place—Carrack Dewa. Mr. James Hollow, who, I had hoped, had purchased this mine and its properties as it stood (he is known to me as too good a judge to pick up a worthless bargain, in a country with which he is so thoroughly acquainted), had his intentions frustrated by intermeddling, vexatious shareholders, who would do anything rather than pay their responsibilities. They are precise specimens of the genus "Heautontimerousness," humorously described in the *Journal* some time since. Little do these worthless know what expenses they entail on themselves and others by their contumacious conduct, irrespective of the chagrin endured by seeing their outlay applied to other's profit, or the disappointment suffered in not realising the profits reasonably calculated from such promising speculations as those now and last week referred to.

I hope and trust vigorous means will be adopted to prove in Court the facts of the cases, and that at the termination of the suits ample reports will be inserted in the *Mining Journal*, the extensive circulation of which will render essential service to the deluded as well as to the honest shareholder.—*St. Ives, Sept. 18.* A. MINE ADVENTURER.

THE SOUTH FRANCES AND WEST BASSETT BOUNDARY QUESTION.

SIR,—I think "An Accurate Observer" has fallen into an error in saying that the judges "reversed the second verdict" in the action of *Lyle v. Richards*. The fact is, the appeal set aside that verdict has not yet been argued, the late Lord Campbell having declined to hear it until the Court of Error had decided whether the question in the first trial was one of law or fact. The Court of Error "confirmed" the decision of the Court below,—that is to say, the judges decided it was a case for the jury, and not for the judge. Under these circumstances, I fancy South Frances has little chance of having the unequivocal verdict of the jury in the action of *Lyle v. Richards* set aside or "reversed." The foreman having clearly stated that the southern boundary line between the West Basset and South Frances Mines was "a line drawn from the south-east corner of J. Vincent's house to the north-west corner of South Wheal Basset sett."—*Lex.* Sept. 18.

AUDLEY MINES.

SIR,—In last week's *Journal* there appears an extraordinary advertisement under the above head, by a mine labourer of the name of James Lawrence, professing to be "in a position to give every particular relating to the appearance and prospects of these mines." Now, if this man ever worked in "the Old Caphag Mine," he does not appear by his statement to correctly remember the particulars of that mine, and I beg to state that his advertisement is unauthorised. I shall be much obliged by your publishing this letter in your next *Journal*. I beg to enclose you my address.

Sept. 18.

THE PROPRIETOR OF THE AUDLEY MINES.

AUDLEY MINES (COUNTY CORK).

SIR,—I cannot allow the statement of Mr. James Lawrence respecting these mines, in last week's *Journal*, to pass unnoticed, because it is not in accordance with truth. He was employed as a miner but a very short period, and did not, as he states, work there during the whole time they were in operation. These mines were five in number—Cappagh, Flenmuck, Bog Mine, Ballycumshank, and Horse Island; and I believe I may fully assert, without fear of contradiction, that neither he nor Capt. Wm. Martin (who he states gave an adverse report upon the property) were underground in any but the workings on the eastern part of Horse Island. How, then, can he be in a position to give every particular relating to their appearance and prospects, or pretend to give the precise details of the workings he never saw; or Capt. Martin to make out a true report of them, from the same cause? I had the management of the whole of the mines until the time of their stopping, about eight years ago; not through poverty, but in consequence of proceedings in Chancery having been commenced against them. I closely and carefully examined the lodes, &c., in every part of the workings whilst they were in operation, and also immediately before they were abandoned, and the water left in. The Old Cappagh Mine was not cleared up, but considerable trouble was taken to find out the most intelligent and experienced miners that last worked in it, and I took down a statement from them of the principal part of the workings, which was very favourable. I think, therefore, I may safely say that no person can know much more of the mines, upon the whole, than I do. The Ballycumshank Mine has since been taken up by an enterprising gentleman, and is now in active operation, with, I hope, good results. The greater part of the lodes also in the other mines are of large size, and will produce rich copper ore and green carbonates. Even in the surface trials, which were made over a great part of the estates, some of the lodes were of the most promising kind, and yielded ores of a very high produce.—*Redruth, Sept. 18.* M. EDWARDS.

PROGRESSIVE MINES—WEST WHEEL TREVELYAN AND CARN CAMBORNE.

SIR,—A few weeks since I sent you a few lines respecting Progressive Mines, and stated that, in my opinion, more money might at the present time be made in such than in Divided Mines. I mentioned several mines in which I thought, still thinking, a great rise will very shortly take place, particularly in Wheal Unity, Great Retailack, and West Wheal Trevelyan. An advance has already taken place in the two former mines, but a mere nothing to what I am convinced it will be very shortly; and I again recommend speculators to lay out 20l. or 30l. in each without delay. The present letter refers more particularly to WEST WHEEL TREVELYAN and CARN CAMBORNE MINES. I will, therefore, commence with the former, and give my reasons why I consider a great advance in the price of the shares as all but a certainty. WEST WHEEL TREVELYAN is 55 fms. deep, and is producing copper ore of very rich quality, the last having averaged 9l. 11s. per ton, a price which no other mine realised on that day's sale. The riches of this mine are in the western part of the sett, which is now being vigorously worked under the able management of Capt. John D. Osborn. From the shaft to the western boundary the distance is 250 fms.; and from the following facts it will be seen that the deeper the mine is sunk the richer it gets, and that the length of ore ground increases as the mine increases in depth. Let my readers note well what I shall now state to them, as such a test of the progress of a mine in the right direction is of the utmost importance. In the 20 west the ore ground was only about 3 fms. long; in the 24 it was about 7 fms. long; in the 28 it was about 12 fms. long; in the 48 the ore ground has already lasted for 35 fms., and there is every probability of its continuing. Every miner knows the value of the above facts. The 58 is now driving west, and is nearly under the run of ore ground in the 48. In less than three months I expect to hear that the lode in this bottom level is worth 20l. or 30l. per fathom. A great rise will then take place. The miner knows that not only is this possible, but that it is probable, almost, in short, amounting to a certainty; for he is remembered that the ore ground in the 48 has varied from 8l. to 20l. per fathom; that the deeper the mine gets the richer the ore is getting; and that the 58 is nearly driven to the commencement of the first run of ore ground. There are also other points to come off in this mine. Now, it will be seen from the above that I do not recommend West Wheal Trevelyan without giving good reasons for doing so. I will conclude my remarks on this mine by extracting from a letter, which I have just received from the captain, the following opinion, and in which I entirely coincide:—"I am fully convinced that the mine is better now than when it was selling for 10l. a share." The present price is about 35s.

The next mine I shall notice is CARN CAMBORNE, in the parish of Camborne, and surrounded by mines which have produced millions of pounds sterling. Now that its riches are acknowledged, I should think the Cornish speculators are all in a state of amazement that such a piece of ground should have remained unexplored until the present time. It reminds me of the gold fields of Australia, which were never discovered until within the last few years. But "there is a time for all things," and the time for the earth to yield up its riches in Carn Camborne sett has now arrived. The present price, I believe, is about 25s. to 30s. I hold 200 shares, and mean to hold them. I look at Carn Camborne like a good old-fashioned fig-pudding, where the figs were put in the pudding whole; the pudding is nearly covered with the rich fruit, but on the top one is covered by the dough; we remove the surface, and behold the figs, plump, large, and exquisitely delicious. This is Carn Camborne.

I have not particularly called attention to four progressive mines—Wheal Unity, Great Retailack, West Wheal Trevelyan, and Carn Camborne; and I once more advise parties to speculate 20l. or 30l. in each mine, that is, if they have any money to speculate with, but if they have none I don't give them any advice. Beyond all things, let them be cautious with whom they deal; a trustworthy, respectable agent is a most important person to speculators in mines. Such a person will advise to the best of his judgment, and will act for a client as he would for himself. Speculators must, however, not forget that there is no certainty in mining;—it is, strictly speaking, a speculation; but when a fortunate hit occurs, what a haul! Just fancy laying out 20l. in sixty shares in Devon Consols, at about 7s. each (for at such a price they could at one time be bought), and to be able to sell each share at the present time for 350l., or 21,000l. for the lot. The same, in a lesser degree, with respect to Dolcoath, South Caradon, East Caradon, Herodsfoot, &c. I will conclude this letter, as I did my last, by asking,—Is it worth the speculation? I believe it is, and I speculate accordingly. Let my readers refer to this letter in a few months time.—*Sept. 18.* AN OLD SPECULATOR IN MINES.

WHEAL ELLEN.—We were, on Thursday, shown some very beautiful samples of copper ore, obtained at a depth of about 180 ft., and consisting of fine stones of copper ore, yielding from 55 to 70 per cent. of copper; the stones consist of a very rich red oxide, and of black and grey ores. The superintendent of the mine, Mr. Hancock, has written a very encouraging report.—*South Australian Advertiser, July 26.*

Meetings of Mining Companies.

GREAT WHEEL VOR UNITED MINING COMPANY.

The ordinary quarterly meeting of proprietors was held at the company's offices, Gresham House, on Wednesday, Mr. G. NOAKES (managing director) in the chair.

Mr. TUBMAN read the notice convening the meeting, and the minutes of the last were confirmed. The CHAIRMAN said that, remembering the position of their undertaking but twelve months since, and contrasting therewith its present condition, whether financially or commercially, he thought proprietors would agree with him that they had good reason for mutual congratulation. From time to time the committee had held out prospects that the property would produce such results as would give proprietors a chance of recovering some proportion, if not the whole, of the capital expended—that opinion, he was happy to say, strengthened as the development of their property progressed. They all knew that mining had many vicissitudes, which compelled one to be exceedingly careful in making promises. Therefore, he wished to be on the safe side by advising proprietors not to be over sanguine, but at the same time the committee believed the position and prospects of the company's property were such as to justify the assumption that the most satisfactory results would be secured. Before, however, continuing his observations upon the subject, he would read the report of the committee, which was as follows:—

The committee have the satisfaction to state that the prospects of the mine have materially improved since the last meeting of the adventurers. Great progress has been made in the general development, and the character of the ground throughout is of a nature to strengthen confidence in eventual success. The lode in the 142 east, near the winze, east of the shaft, has separated into two lodes, one taking a north and the other a south direction. The latter appears to be the main lode, and shows indications of a continuous course of ore. At the point of separation, in the bottom of the 142 east, the lode is large, and of a character to give every prospect of its holding down to the level below. Metal shaft has, therefore, been sunk to the 152 with great vigour, in order to get to the 100 and relieve Metal shaft, which will more completely ensure the continuity of the lode. The committee watch this development with anxious interest, for should the lode hold down productive, and a good course of ore be found in the 152, it will materially add to the returns, and brighten the prospects of the adventure. The lode in the 142 west has considerably improved since last met. The committee consider this also an important point in their operations, as there is a long run of ore ground west. A cross-cut is now in course of driving from the 132, east of Metal shaft, to prove the south part of the lode. Ivey's shaft is nearly completed down to the 100, and it is hoped that by the end of the year the pitwork will be in order, and ready to take the water up from the 100 and relieve Metal shaft, which will more completely ensure the continuity of the water at all seasons. Edward's shaft has been carried down to the 40. It is now proposed to drive east and west to explore that ground, which is of a favourable character; and should a discovery be made it will be of importance, as it will extend the run of productive ground, which is now becoming considerable. The stopes generally are yielding very well, and there is little doubt but present returns will be maintained, with a good prospect of increasing them. A new feature has opened out since the last meeting of the adventurers, which may enlarge the prospects of the mine. A new lode has been opened up in the south part of the sett, called the south lode; the character of the ground is favourable for productiveness, and should a new course of tin ground be found in this part of the sett it may lead to considerable increase in the value of the property. The managing director has held several important meetings at the mines, in conjunction with some members of the committee and the agents of the mine, for the purpose of taking into consideration the best course of extending the underground workings for permanent advantage, and it is satisfactory to state that the mode of working the mine has been approved of by Capt. Bryant and Mr. John Peterick, who have visited and inspected the mine. They consider the prospects to be most encouraging. These opinions have been since confirmed by Capt. Lean, who has recently inspected the mine for an independent shareholder. The shareholders will observe that a large portion of the assets is now in course of development. The returns are gradually increasing, and the general prospects are a most favourable nature. It is with no small satisfaction that the committee feel themselves enabled to lay before the meeting a financial statement, whereby it will be seen that, notwithstanding the great fall in the price of tin their extended operations have been carried on within cost.

The audited cash account to July 31, 1861, showed a balance in hand of . . . £4624 3 10
Since which date there has been received—Tin sale on Aug. 10 . . . 1214 6 8
Tin sale on Sept. 14 . . . 1440 11 10
Rent of Trow premises and sundries from the mines . . . 20 8 10

And paid—
Total . . . £7299 11 2
Lords dues for quarter ending June . . . £210 0 6
July cost . . . 1029 18 9
R. W. Childs (law charges, 12 months), including Stanley Court charges . . . 51 12 8
Travelling expenses of deputation to the mines . . . 18 0 0
Professors of Mining Journal . . . 3 5 0
Sundries . . . 3 17 2 = 1316 14 1

Balance (cash and bills) . . . £5982 17 1

The actual account as it stands this day is as follows:—

Balance as above . . . £5982 17 1
Arrears of call still due . . . 17 6 3
Materials sold, but not settled . . . 393 15 6 = £6393 18 10

LIABILITIES.
Cost for August . . . £1143 7 5
Sundry accounts, rent, &c. (say) . . . 200 0 0 = 1343 7 5

Balance in favour of the mine this day . . . £5050 11 5

He hoped the report just submitted would prove as satisfactory to the proprietors as it was considered to be by the committee, for reflecting the great vigour and extent with which the mine had been developed, and that such a favourable balance as £5050l. was this day standing to the credit of the company, he thought shareholders would endorse the opinion that their present and prospective positions were equally encouraging. The report from the captains of the mine was as follows:—
Sept. 16.—In the 142, driving east of Metal engine-shaft, on the south part of the lode the lode is 2½ ft. wide, worth about 30l. per fathom. In the 142, driving east of Metal engine-shaft, on the north part of the lode, the lode is 1½ ft. wide, worth 26l. per fathom. In the 142, driving west of Metal engine-shaft, the lode is 3 feet wide, worth about 26l. per fathom. In the 132, driving east of Metal engine-shaft, the lode is 2 ft. wide, worth 7l. per fathom. In the 132, driving west of Metal engine-shaft, the lode is about 2 ft. wide—poor for mineral. In the winze sinking below the 132, west of Metal shaft, we have about 300l. per fathom. In the 100, we have commenced a sink; we have only sunk about 3 feet. In the 152, at Metal shaft, we have driven the cross-cut about 5 ft. south; we expect that we shall have to drive from 10 to 12 ft. before we intersect the lode. In the 132 cross-cut we have not intersected any lode or branch since we commenced to drive. We have cased Edward's shaft down to the bottom, and have commenced to drive east for a pit; and after we drive 2 fms. we shall cross-cut south to intersect the lode and explore it; the ground looks very promising for the lode to be productive. We have intersected the south lode at the shaft about 10 fms. deep; the lode is about 2 ft. wide, yielding a little tin, but not sufficient to value; we shall commence now to sink on the west of it. We are making the progress of driving Ivey's shaft; we expect to have it down to the 100 this month; we have four men preparing it to put down the pitwork. In the stopes in bottom of the 132, east of Metal engine-shaft, the lode is 4 ft. wide, worth about 40l. per fathom. In Nov. 1 and 2 stopes, in back of the 132, the lode is about 4 ft. wide, worth 36l. per fathom. In the stopes in back of the 122, east of Metal engine-shaft, the lode is 4 ft. wide, worth 8l. per fathom. Our prospects throughout the mine are looking very encouraging, and our machinery is working very well.—T. GILL, F. FRANCIS, S. HARRIS.

A letter was then read, received that morning, from the captain to the effect that the 152 end, on the north lode, had improved very much since the previous day. The north and south lodes had made a little towards each other during the last 6 feet, which led to the belief they would form a junction going east. It was an important fact, inasmuch as they were approaching under the point where, in the 142, the lode had been sunk 300l. per fathom. We saw no reason why the lode in the 152 should not prove of equal value to that of the 142.

The report from the engineers stated that they had thoroughly examined the machinery throughout the mines, the whole of which was in good working order.

The CHAIRMAN said with regard to the returns of tin, the committee were by no means anxious to increase them, desiring a greater proportion to be set open than they were to render their profits of a permanent character. They were extensively developing the mine, and were monthly increasing their reserves, and he trusted they would soon see their property in a dividend-paying condition. He thought the facts that had just been detailed gave them every reasonable expectation that the most satisfactory results would be achieved. They had an excellent prospect of meeting with a good course of ore in the 152. In the winze they had a large lode, and at the point of separation was exceedingly rich. It would be recollected that the lode had been separated by a horse of kyllis; both parts were productive—one had taken a northerly and the other a southerly direction. He thought it was worth noting that the lode in the 152 was a continuation of the lode in the 142. He did not know that he ought to initiate the consideration that might be taken with regard to their finances—a distribution of a portion of the surplus capital; but whatever decision might be come to, he hoped it would not be done without proper care and reflection. In a company like theirs it was always desirable to keep a large balance in hand, in order to meet all contingencies; and he, therefore, hoped proprietors would be very moderate in their expectations of a distribution of the surplus capital. As far as he was individually concerned, his own feeling was that a distribution of 5s. per share would be sufficient, which would leave a handsome balance to the credit of the next account; in addition to which there was every probability that a small amount of profit would be accumulated every month, so that another distribution might be made.

Mr. DOCKER regarded the position and prospects of the undertaking with the utmost satisfaction; and he thought shareholders could but be much pleased with the efficiency with which the whole of their works had been conducted. He knew that their worthy Chairman had contended against and surmounted many difficulties, and had encountered many trials and anxieties on behalf of the company; which, however, only verified the old adage, that "The tree which bears the most fruit gets the most pelted at." With regard to the distribution, he should have no objection, when the subject came before the meeting, of proposing a distribution of 5s. per share.

The reports were then received and adopted, and the accounts passed and allowed. The CHAIRMAN said the next question was with regard to the distribution—that was a subject entirely for the decision of shareholders; but as he had already said, his individual feeling was that the distribution should be at the rate of 5s. per share. Mr. DOCKER, endorsing the opinion of the Chairman, had much pleasure in proposing that a distribution of 5s. per share should be made.—Mr. BIRN seconded the proposition. Mr. W. HARVEY proposed an amendment, to the effect that the distribution be 7s. 6d. per share. That would absorb 2800l., and thus leave a balance of 2750l., which would be a good balance to carry to the credit of the next account; in addition to which before the next meeting there would be accumulated a small monthly profit.

Mr. STANTON seconded the amendment. A SHAREHOLDER thought the recommendation of the committee should be adopted—that a distribution of 5s. per share should be made.

The CHAIRMAN said that he had not put that forward as a recommendation of the committee, but had given it merely as his individual opinion; indeed, some of the committee were of opinion that the distribution should be 7s. 6d. per share. He would rather have preferred two distributions of 5s. at distant periods, instead of 7s. 6d. upon the present occasion. The matter, however, was entirely in the hands of the meeting. He might, perhaps, mention that he held a large number of proxies, but he should not use them in voting upon the present question.

After some further discussion, Mr. DOCKER having consented to withdraw his resolution, the proposition that a distribution of the surplus balance, to the amount of 7s. 6d. per share, should be made, payable Oct. 1, was put and carried unanimously.

The committee of management were re-elected, and Mr. G. Noakes was appointed managing director, with the usual remuneration. Mr. Moates was reappointed auditor.—A vote of thanks to the Chairman was then passed, when the proceedings terminated.

Information has reached us that a rich lode has been cut in the 152 ft. level, east of Wheal Metal shaft. It will be observed, by reference to the report of the Great Wheal Vor meeting, that the prospects of this is alluded as calculated to materially brighten the prospects of this adventure, and we understand the nature of the discovery is such as to give these persevering adventurers a good chance of seeing a large portion of their great outlay returned to them.

WHEEL GRILLS MINING COMPANY.

An ordinary general meeting of shareholders was held at the company's offices, Adam's-court, on Wednesday, Mr. PETER WATSON in the chair.

Mr. DUNFORD (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed. The accounts for the six months ending June showed:—

Tinstuff sold	£2603 7 0
Interest account	1 11 10 = £2604 18 10
Balance last audit	£ 131 19 11
Mine cost	2563 19 4
Merchants' bills	559 4 3
Dues	192 6 3
Incidental expenses	0 3 6 = 3447 13 3
Leaving credit balance	£ 187 5 7

The report of the agents was read, as follows:—

Sept. 16.—Fisher's Lode: In handing you our report for the last six months, we beg to say that Annie's engine-shaft has been sunk 4 fms., shaft cased and divided from the 20 to the 20, and driven east and west on the course of the lode in the 20, 28 fms.; we are glad to say the lode is improving as we go down; nearly all the ground sunk and driven through will be taken away at a profit. In the end east, at the present time, the lode is worth 8l. per fathom, and west 11l. per fathom. In the back, 9 fms. west of the shaft, we have risen a winze 3 fms. 2 ft. 6 in., from which there is broken a rich pile of copper ore, but the winze is now poor, and suspended; this appears to be the top of a bunch of copper ore in the junction of the red and blue ground; in each end of the winze the lode will produce good stones of tin, with spots of copper ore. Since the last meeting the 10 has been driven from the different shafts on the course of the lode 159 fms., and is now stopped by reason of being near the eastern boundary; also made a communication by several winzes from addit to this level, the ground thus opened is working by tributors at a price varying from 6s. to 13s. 4d. in 1l. The flat-roof shaft has been sunk 10 fms. 5 ft. 6 in., cased and divided from the 10 to the 20, flat cut, cross-cut driven 2 fms. 1 ft. 6 in., and cut the lode, and driven on its course 4 fms. In the eastern end the lode is 6 in. wide, producing stamping work of moderate quality. In the end west the lode is worth 20l. per fathom.—Georgia Lode: The deep addit level has been cleared and timbered about 290 fms., shaft sunk from the 33 to the 40, addit, cross-cut driven, and cut the lode, and opened on its course 14 fms. In length; this piece of ground is worth on an average 30l. per fathom. In the end north the lode is also worth 30l. per fathom; in the end south the lode is worth 10l. per fathom; also sunk a winze from the 33 to the addit level. In the back of the addit level there is one stope working worth 40l. per fathom. The stope in the back of the 33 is worth 14l. per fathom.—Standard Lode: The winze-shaft has been sunk from the 35 to the 40; the different levels driven on the course of the lode 40 fms.; the ground laid open at this part of the mine is working on tribute, at a price varying from 4s. to 10s. in 1l.—Copper Lode: We have erected a new winze, rid up this distance; also driven a cross-cut 7 fms., cut the lode, and made a communication from this place to Georgia and Moyle's shafts. The lode around Moyle's shaft is poor, but it will work on tribute when the stamps are put to work, as the lode is composed of both tin and copper. We would remark our mine is in good working order, having a large quantity of ground laid open that will be taken away at a low tribute, and the points of operation are more valuable than they have been for some time. At surface the steam-engine is working very well, and giving great satisfaction. We set on Saturday, the 14th inst., the steam-stamps engine-house to build at 2s. 4d. per perch, which will be commenced at once; no time shall be lost in getting it to work as soon as possible.—E. ROGERS, J. POPE.

The CHAIRMAN, in moving the adoption of the report and accounts, congratulated the shareholders upon the greatly improved position of their property, as also upon possessing so valuable a tin mine, independent of the excellent prospects of returning copper ores to market at no distant date. It had been thought advisable to hold the present general meeting, showing a six months' account, instead of two quarterly meetings, in the hope that, in consequence of the magnitude of the tin ground laid open and still being discovered, steam-stamps might be obtained. Some four weeks since he, in his capacity as a member of the committee, went to Cornwall for the purpose of purchasing steam-stamps at public auction, but in consequence of the high price it realised he did not succeed in purchasing it, but after having advertised for suitable machinery he again proceeded to Cornwall, and succeeded in purchasing a 33-hp. stamping and winding engine, and 24 heads of stamps attached, with a 10-ton boiler, together with all the wood-work of engine and boiler-house, and part of wood-work for dressing floors, &c., for the sum of 730l.—a cheaper bargain had seldom been heard of. The tinstuff credited in the accounts, notwithstanding the great reduction of 20l. per ton in the price of tin, amounted to 2603l., against a cost of 3400l., showing a profit of 797l. But in that account there were included several hundred pounds which had been spent upon what might be considered dead work, and which would not be required again. Had that same quantity of tinstuff been stamped and the gold sold it would probably have realised 4500l., and thus left a profit of 1500l. It would be satisfactory to shareholders to learn that the last monthly sale of tinstuff had realised 1000l., and had that same quantity of tinstuff been stamped, which would have produced about 20 tons of stamped black tin, it probably would have brought 1300l., or a profit of about 600l.; that fact alone, he thought, would show the importance of erecting forthwith the necessary machinery to enable them to stamp their own tinstuff. That shareholders might form some idea of the magnitude of the sett, he would mention there were thousands of fathoms of mineral ground laid open at Fisher's and the Standard lodes, which would take years to extract. Upon Georgia lode there had been sunk an addit level, and the lode in the shaft was worth 20l. per fathom, or 150l. for the length of the shaft—3 fms., which had been sunk since last meeting. They had two good ends, now worth 10l. and 30l. per fathom, and a stope worth 40l. per fathom. The importance of this level is shown by the fact that the rich tin ground is fast and considerably lengthening as the depth has increased. He expressed his full confidence that when the steam-stamps were in operation, which would be the case about December, it would be the means of greatly increasing the monthly returns, and give good and regular profits to the shareholders. Before concluding his remarks he would draw attention to one important fact—that while, with some few exceptions, Wheal Grylls was producing the richest description of tinstuff, no mine in the county of Cornwall could boast of producing that same tin at so cheap a rate. The dividends which Grylls had paid could have been continued, but the committee, feeling the necessity of erecting substantial and suitable machinery, and that the mine should be opened out upon an extended scale, had ceased the payment of dividends, and it was with no small gratification he now informed shareholders that their property, extensive as it was, had been laid open, that the whole of the necessary machinery would soon be in full operation, and that they were fully justified in expecting that large and permanent profits would soon be made.

Mr. MOLLISON drew attention to an improved description of buddle now being employed in some of the Cornish mines, by which a saving of something like 50 per cent. was effected. He thought it desirable that their agents should be acquainted with these important improvements, in order that they might determine whether or not they could be advantageously introduced at Wheal Grylls.

The CHAIRMAN said the committee had fully considered all those matters, but reminded the hon. proprietor that an apparatus that might be applicable to the dressing of tin in one locality would be altogether inapplicable in another.

The report was then received and adopted, and the accounts passed and allowed. The CHAIRMAN said it was the opinion of the committee that the machinery, referred to in his opening observations, should not be paid for out of profit, but that a call should be made to liquidate the expenditure which its purchase had incurred. He knew that it was the opinion of some shareholders that a call ought not to be made, inasmuch as it was not imperatively necessary, but while he was free to admit it was not absolutely necessary to make a call, yet remembering that, when their stamps were in operation, their monthly returns would secure a much larger profit than by selling the tinstuff undressed, he contended it would be in every respect be for the benefit of proprietors to pay for the machinery by making a call—or, as it were, advance a certain sum of money upon the tinstuff to pay for the machinery, which would be repaid to proprietors with a very considerable interest.

Mr. E. COOKE quite concurred in the opinion that a call should be made sufficient to cover the expenses of the machinery, and to leave sufficient money in the hands of the committee to prevent the sale of the whole of their monthly returns at a sacrifice. He certainly did not think their profits should be appropriated to the purchase of machinery.

Mr. KICH enquired if they were to understand there were any arrears of call?

The SECRETARY replied that there was a very small amount of arrears, which had not been paid, in consequence of the holder being abroad.

The CHAIRMAN, in answer to a question, replied that they had every reason to expect the most satisfactory results from their copper returns.

Mr. COOKE was glad to hear that they had several ends driving in good ground, and that the Chairman said that their different ends, seven in number, were each being driven at 35s. per fathom, the average value of the returns being about 80l. per fathom.

It was then unanimously resolved that the purchase of the stamping machinery should be confirmed, and that in order to provide the necessary funds a call of 1l. per share should be made, and it was agreed that the salary of Capt. Rogers should be increased from eight to ten guineas per month, and that of Capt. Pope from four to six guineas per month.—The committee of management having been re-elected, with thanks for past services, a vote of thanks to the Chairman was passed, when the proceedings terminated.

PELYN WOOD MINING COMPANY.

An ordinary general meeting of shareholders was held at the company's offices, Change-alley, Cornhill, on Tuesday, Mr. T. FULLER (the purser and secretary) in the chair.

A statement of accounts was submitted, from which the following is abstracted:—

Balance last audit	£1782 3 10
Mine cost, April to June, law charges, rent, &c.	264 17 11 = £2047 1 9
Calls received	366 17 6
Leaving debit balance	£1680 4 3

The notice convening the meeting having been read, The CHAIRMAN said that in placing before the meeting the financial position of the company since the meeting in May, which then presented liabilities amounting to 1782l. 3s. 10d., he had to state that since that period there had been incurred a cost of 264l. 17s. 11d., making together a total liability of 2047l. 1s. 9d. In May last there was a call of 2s. 6d. per share, and assuming it to be fully paid, there would remain, after deducting the amount realised by the copper ore and materials sold, a considerable deficiency, which, seeing that legal measures had been taken against him as purser, and other members of the propriety, it was absolutely necessary should be provided for at the present meeting. They had been labouring under great disadvantages from the commencement, arising from several proprietors having held a larger interest than they could pay upon, hence the forfeiture of some and the relinquishment of others, and reducing the number of shares to 2885. Under those circumstances, it would be necessary to make a call to discharge the liabilities, beyond which it was estimated that 400l. would be required to prove the south part of the mine, which presented every prospect of success upon the intersection of the east and west lode—that, he need hardly say, would have been attained before now had not the claims upon the mine been so

which it was surrounded. A suggestion had been made that, after providing for all liabilities, the company should be placed under the provisions of the Limited Liability Act. It was for the meeting to determine what course should be adopted, but at the same time it was imperative that whatever it was should be carried into effect forthwith. He still believed that if prosecuted with energy, Pelyn Wood would yet become a profitable mine. No mineral property could be worked at less cost, there was an abundance of water-power for dressing, pumping, &c., and there were good carriage roads for conveying the ores and materials to a shipping place. He trusted means would be adopted to place the mine in the position which it deserved.

A report from Capt. Seymour was then read, to the effect that he believed the prospects for the opening up of a good copper mine justified the outlay of a few hundred pounds. A letter was then read from a party at Plymouth, offering to purchase the property and plant for the sum of £500. Another offer was made of 2000 shares of the East Forey Consols Mine, which property adjoins Pelyn Wood, by which arrangement the two mines would be worked under one management.

Mr. WHITEHURST (a solicitor) informed the Chairman that he had received instructions to take proceedings against several of the shareholders who had not paid their calls. The Chairman said that, under the advice of Mr. Berry, the company's solicitor, he had the day previously refused to register a large number of transfers, on account of some heavy claims being pressed for payment.

The accounts having been passed and allowed, the Chairman said the next subject for consideration was that of a call. He had fully considered the financial position of the company, and even assuming it to be paid, the lightest call that could be made would be 1s. per share.

A SHAREHOLDER proposed that the company should be wound-up. Mr. ROBERTSON, who appeared for Mr. Berry, the company's solicitor, submitted that such a proposition could not be entertained at the present meeting, it being required by the company's rules that for the consideration of such a proposition a special meeting must be convened.

The CHAIRMAN, in answer to a question, stated that the present meeting was duly qualified, and that there were represented in person and by proxy nearly half the mine. As the works at the mine were in abeyance, it was, of course, unnecessary for their agents, Capt. Joseph Richards, to furnish a report.

It being proposed from the chair that a call of 1s. per share be made, the resolution was put and carried.

The CHAIRMAN trusted the shareholders would respond to the call, and enable him to discharge the liabilities, and thus prevent the company's funds being frittered away in law suits.—A discussion arose as to what course should be adopted with respect to the future development of the mine, when

Mr. WHITEHURST suggested that the present meeting should be adjourned, and that such adjournment should be made special, for the purpose of considering the alternatives. Mr. ROBERTSON suggested that the recommendations put forth by their Chairman should be embodied into a report, and entered upon the minutes; it could then be sent out to each shareholder as coming from the company, which recommendation having been adopted, a vote of thanks to the Chairman was passed, when the proceedings terminated.

GERNICK MINING COMPANY.

An ordinary general meeting of shareholders was held at the company's offices, Austinfriars, yesterday, Mr. LANKESHAIR in the chair.

Mr. W. CHARLES (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed.

The accounts from April to June showed:—

Balance last audit.....	£ 12 6 9
Calls received.....	300 0 0 = £312 6 9
Mine cost.....	£206 15 7
Merchants' bills.....	82 9 0
Sundry bills.....	14 13 0 = £303 17 7
Balance last audit.....	£ 8 9 2

The report of the agent was read, as follows:—

Sept. 19.—Since the last general meeting our operations have been confined to sinking Spencer's engine-shaft and driving east and west on the lode at the 30. In the engine-shaft we have sunk 7½ fathoms below the 30. The lode has been, on an average, 2½ ft. wide, and highly mineralised, principally murex, and occasionally producing a little copper ore. In the present bottom of the shaft the lode is 3 feet wide, very soft, composed of murex and quartz—a very kindly lode, such as to warrant the belief that it will in depth produce large deposits of copper ore. It should be borne in mind that this shaft, being only about 17 fms. from surface, is not more than the depth of a moderate adit, and just approaching the depth at which our best copper mines have made their first deposits of ore. The 30 fm. level is driven 16 fms. east of engine-shaft; the lode in the present end is 2½ ft. wide, and contains plenty of murex, thinly interspersed with black oxide of copper; this end has produced more copper in the last 2 fathoms driving than heretofore, and I am strongly of opinion that in this part of the mine we are near some very valuable ground. This lode has been opened on in the adjoining mine, to the east, in the granite, where it has produced some good quality copper ore. The 30 is driven west of engine-shaft 18 fms.; the lode in the present end is 2 ft. wide, and from its character and the stratum about it I think it likely to become productive for tin, but it is not producing anything to value at present. I recommend you to sink the engine-shaft to a 50 fm. level, if no change should take place in the same to warrant the driving of levels previously; and at the same time to continue driving the 30 east, which is now being done at 40s. per fm.; also to continue the 30 west a little further, where we expect to intersect an elvan course, which I think will produce a favourable effect on the lode for producing tin. To do this will incur a cost of about 1000l. per month, which will lay open a large extent of ground on the lode, and I consider there is a fair chance of making discoveries to quickly meet all our outlay.—CHAS. CARKEK.

The CHAIRMAN stated that a short time since, when on the mine, he saw the lode near the boundary of the sett, which was now showing copper ore. The lode at the point he saw it certainly presented the most favourable indications. The level was now being driven towards the point where he saw the ore. The present level was 16 fms. below the 30, and he considered by extending it the granite would soon be reached. The shaft was now 7 or 8 fathoms below the 30, and the agent recommended that it should be sunk to the 50 before a new level was driven, unless a change should take place in the lode that would warrant the driving of a level at a shallower depth. The present costs amounted to about 1000l. per month, and the committee exerted their utmost to develop the property with the greatest economy. Geologically, the features were all but perfect; and as the lodes were large, kindly, and highly mineralised, he thought they had reason to anticipate that satisfactory results would be achieved.

Mr. HALL enquired if they were raising any tin, and the agent replied that they commenced operations certainly gave strong indications for tin, but since they had gone deeper the character of the lode had changed. It was now more promising for copper than for tin. An improvement had taken place in the 30, driving east, where the lode was showing some grey and yellow ore, and he hoped, as the Chairman had stated, that upon driving into the granite good results would be obtained. Some had complained that the mine was not being developed with sufficient rapidity, in answer to which he might inform proprietors that every point the agent had recommended was being developed, and the committee very properly thought they were best consulting the interests of the company by continuing that course rather than by driving levels with but little chance of obtaining success. The lode at present being developed was certainly of a very strong character, such, indeed, as fully warranted the trial that was taking place.

Mr. W. WARD had also seen the lode at the point referred to by the Chairman, and from what he himself had seen he thought, by following out the recommendations of the agent to extend the level, some good discoveries were likely to be made. As regarded their financial position, he considered, that though the arrears of call were by no means large, it was very desirable they should be paid.

The report was then adopted, and the accounts passed and allowed. A call of 1s. per share was made.

A vote of thanks to the Chairman was passed, when the proceedings terminated.

TRESELYN AND SCADDICK CONSOLS MINE.—This mine being now in full work, with all its machinery complete, and it being a general custom in Cornwall to celebrate the completion of a new mine by a general dinner to the friends, and to the workmen, the entertainment took place at the King's Head Hotel, Fivis, near Altarnun, on Monday, when 13 gentlemen sat down to a substantial repast, Mr. J. Sargent, of Liskeard, in the chair. All honours having been paid to the usual loyal toasts, the worthy Chairman proposed "The Secretary's health, and Prosperity to the Treselyn and Scaddick Mining Company." He believed they had now a most excellent property, both for tin and copper; he knew the locality well, and a few days since he was in company with an experienced agent, who had inspected the mines for him, and he believed for others also. That agent had been the manager of several mines in the Caradon district, and was familiar with the copper lode, the granite stratum. He had informed him (the Chairman) that he was confident the Treselyn copper lode would be found productive at a reasonable depth, for the backs of the lodes were in every respect similar to the Caradon's. He had long known Capt. John Spargo, the manager of the Treselyn and Scaddick Mines, and no doubt he (Capt. Spargo) could well remember the time when the Caradon Hills, now so richly productive, were as barren of mineral produce as the hills of Altarnun. He yet hoped that this district would equal the Caradon. Mr. Wooley, banker, Launceston, said he had just visited the mine, and seen much very good work, which, in his judgment, was amply sufficient to prove the value of the lode. He saw a 27-ft. water-wheel, 6 ft. diameter, with 60 fms. of rods, worked with the greatest ease by a very small stream of water, though abundant supplies were available when required. He had no doubt that in a very few months this property, which had been laid out in a miner-like manner, would greatly advance in value. Capt. Spargo's health was then proposed, and drunk with cheers. In responding he said:—Gentlemen, I am glad to have the pleasure of meeting you here on this occasion. Most of you have known me for many years, and are aware of my reports on the different mines I have been engaged to inspect. I am glad to say these reports have led to the accumulation of rapid returns by several individuals, and I hope the day is not far distant when there will also be good results in this district. He perfectly agreed with the remarks made by the Chairman in reference to the Caradon district. He worked for tin in that neighbourhood 35 years ago, when there was not a stone of copper to be seen broken from any lode in the whole district. Years ago he had been employed by Mr. Robert Serjeant, of Callington, to inspect the now well-known South Caradon sett, and although his report was most cheering, it had little weight at the time. The agents then employed by capitalists were chiefly from the West of Cornwall, where the clay-slate produced the best mines, and their opinions were dead against copper in the granite of the east of the county. But experience has shown that the mines in this granite district are some of the very best in the country, and that they are likely to continue prosperous through the present century. The Chairman has produced a stone taken from the East Caradon at a shallow level. The composition of this stone is chiefly black oxide of copper, with iron pyrites and felspar, but little or no fluor-spar; its whole nature is similar to the specimens broken at Treselyn, very near to the surface. The shares at the East Caradon two years ago were 40s.; they are now quoted at 28s. The Treselyn is situated in the same range of granite, is subject to similar elvan dykes, and the composition of the rock is the same; who will deny, therefore, that there is ground for anticipating as good results with the Treselyn? From its geological appearance he shall certainly expect to find it so, and he hoped ere long to congratulate the shareholders on the discovery of a rich mine both for copper and tin. He should ever feel it his duty to spend their money in making discoveries to the best of his ability. (Applause.)—The Chairman said he perfectly agreed with Capt. Spargo that the specimens produced from the East Caradon did very much resemble those broken from the Treselyn lode, and he firmly believed that the latter would turn out a good mine. As to the tin lode at the Scaddick, the specimens now on the table are as good as the county could produce.—Mr. John Pearce said he knew something about tin specimens, and those on the table were certainly very rich. Other topics were then discussed, and the conversation was most interesting. Spargo said that for several years he had been the manager of the Great Treguise Mine, which nearly adjoined Treselyn, and though for a long time not a particle of copper was seen, he was happy to state that, though not now the agent of the mine, his reports had been verified by the discovery of a rich copper lode, and the mine would now be classed with the paying mines of Cornwall. In reply to a question from Mr. D. Pearce, Capt.

Spargo said that, taking the longitudinal bearing, the Great Treguise and the Treselyn copper lodes were the same, but as the distance between them was two miles, it was difficult to say positively. Much discussion ensued on the general geological features of the different districts in Cornwall, and the evening was spent harmoniously.

FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY (Limited).—Advices from Brazil: Morro Velho, July 29.—MINE.—Since the date of my last advice the general operations in the mine departments have been carried on regularly. We have a very good attendance of natives, and the regular force of the company is adequate to our requirements. There has been a full supply of stone from the mines, giving sufficient ore for the stamps' consumption after the rejection of the killas and other unproductive stone on the spalling-floors. The supply of water is good for the month of July, and the hauling-machines are driven at full rates. We have had a little rain this month, which is rather unusual, but very advantageous in many respects. Our regos and plans respecting the water supply are now well prepared for the approaching dry season, so as to make the best use of the quantity received at the works. The ordinary work is being proceeded with throughout the mines, and the sinking at the West Quebra Panella is again proceeding. No change has taken place in the general quality of the lode, and the stamping at present is carried on with vigour. Fully an average amount of attention and labour are now given to the general timber work.

PRIMA.—These works have been well supplied with cascalho and other hard material suitable for the retreatment of the sand received from the Morro Velho Works. The machinery and stamping process have been kept at nearly full rates, and a fair produce may be expected for the period now referred to. Gold extracted to date. The produce of the stamps for the second division of July, being a period of eight days, is as follows:—

From General stamps.....	Oits. 6580	Tons ore. Oits. p. ton. 1016.0 = 6.476
" Herring (East Bahu).....	2492	288.4 = 6.362
" Lyon (Mid. and West Cachoeira).....	1817	288.6 = 6.362

Total..... 10,893 1660.0 = 6.982
This is the largest produce yet extracted from Morro Velho. It gives a daily produce from the stamps of 1361 oits. The standard yield from the ore treated is also above the average, being 6982 oits. per ton. This is a large return of gold for the period, and a high standard yield from the ore. It affords me pleasure to advise this result; at the same time I think it is probable we may get a little more of the gold contents, as we are enabled to apply the plans now at work on a more extensive scale.

RETRATAMENTO.—The stamps are now working at nearly full rates, and three others will, I hope, soon be added, with as good effects as we have found at the other stamps. The gold struck off on July 25, for Rio de Janeiro, taking 18 boxes of bar gold, consisting of 54 bars, weighing 84,456 oits., or 811,266 lbs. troy. Should the Bank of Brazil not purchase it on our terms, the gold will be shipped for England. The gold duly arrived in London.

Aug. 17.—The produce extracted in the month of July exceeds that of any previous month since the commencement of the company's operations in Morro Velho; it amounts to 45,106 oits., and has been derived as follows:—

From General stamps.....	Oits. 24,635	Tons ore. Oits. p. ton. 4040.0 = 6.097
" Herring (East Bahu).....	8985	1012.0 = 8.881 = 6.705
" Lyon (West & Mid. Cachoeira).....	7220	1039.0 = 6.949
" Arrastres.....	1939	— = 0.318
Total stamps and arrastres.....	42,782	6091.2 = 7.023
Prata (stamps and arrastres).....	2324	— = 0.318
Total.....	45,106	— = 0.318

Whether as regards the standard of gold recovered from the ore treated, or the produce of the stamps, the foregoing monthly return is the best yet acquired from the mines. The steadily increasing produce of gold from the ore treated is at present very gratifying, and if the supply of stone from the mines admit of the same process of treatment being continued, there is no reason to expect any decline in the amount of gold extracted at the present time. The average daily produce for July is 1455 oits.

COST AND PROFIT.—During July the native pay is unusually heavy, from an additional day occurring in the month, and there has been a little increase in the outlay, both for materials and provisions, so that the monthly cost is nearly 700l. above the average. Produce for July being 45,106 oits. Less loss in melting..... 249 oits.

Leaving..... 44,857 oits., at 7s. 7d. per oit. £17,008 5 7
The cost for July is Rs. 88,396 \$610, exchange 2s. 1½d. 9,484 4 5

This leaves the profit for July of £7,524 1 2
Although the cost is heavy, I hope the profit realised will be considered as satisfactory. We are carrying on greatly increased work, both in the mechanics and mine departments, and thereby our ordinary outlay is exceeded. The facilities which are thus being provided for future operations will be advantageous hereafter.

EXPENDITURE.—During July, working for 31 days, average 133-02 heads; stamps worked 135 heads, average 30-55 days; arrastres working each average 25-90 days; arrastres produce per diem each 4-67 oitavos; stamps produce per diem each 9-90 oitavos; arrastres produce on that of stamps 4-74 per cent. The quantity of sand amalgamated amounts to 1597 cubic feet, yielding 21-42 oitavos per cubic foot. The ore reduced by the stamps 6091 tons, and the killas rejected was 2402 tons. The operations of this department on the spalling-floor have been carefully and steadily carried on during the month. The machinery has been fully employed in the reduction process, and the treatment of the sand in the amalgamation-house has proceeded satisfactorily. The cost of the stamps has been rather above the average for the month of July. PRATA.—The stamps for these works is, from cascalho and sand, 1112 oitavos; from killas and sand, 609 oitavos; together, 1721 oitavos. The arrastres produce is 609 oitavos; making a total of these works of 2324 oitavos. This is a very large produce from these works, considering that during July the supply of water, though better than usual, was not equal to drive the stamps and arrastres at their maximum rates. At present the cascalho from the bed of the river below the works is very good.

MINE.—The native force has given an average daily attendance during July of 338-89. Of these there was an average of 243-49 miners, who have carried 9788 lbs. of ore from the mine to the surface, and 31-32 tons of ore to the Cascalho. The Cascalho shaft has been sunk 4 ft. vertically. Walker's inclined plane has been extended about 9 fathoms, and 8 fathoms of it adjusted and improved. Of the new inclined plane over the bar 18 fms. more have been completed, and six cross pieces put in for its further construction. Thirty pieces of general timber have been cut in, and the masonry pillar in section 127 approaches completion. In the Bahu no sinking has been attempted, but a little driving eastward has been effected. A new plunger of iron, the first tried in Morro Velho, is well forward, the H piece having been sent out complete from England. The timber work in both mines has been fairly advanced to, as also the footways and water-courses. The prospect of the mine is very good, and the quality of the lode throughout the mine worth recording. In the short stopes of the champion ground there is at present an increased proportion of quartzose matter, but this circumstance is not of consequence.

WEST QUEBRA PANELLA.—In sinking and extending the shaft here there is as large a force engaged as can be advantageously employed. The appearance of the lode continues favourable, and the ore raised from it is being reduced in the general stamps. As the shaft admits of it the force will be increased, and the opening of this part of the lode will be steadily prosecuted.

GOLD EXTRACTED TO DATE.—The produce of the stamps for the first division of Aug. being a period of eleven days, is as follows:—

From General stamps.....	Oits. 8510	Tons ore. Oits. p. ton. 1400.8 = 6.075
" Herring (East Bahu).....	2995	376.8 = 7.948
" Lyon (West and Mid. Cachoeira).....	2884	333.6 = 7.745

Total stamps' produce..... 14,809 2111.2 = 6.673

The foregoing yield from the ore treated is very good; not quite so high from the East Bahu as during some previous divisions. This is explained by no sinking having been made in the sump-shaft. The standard yield is satisfactory from the general ore treated.

MARIQUITA AND NEW GRANADA.—Santa Ana Mines: No profit and loss account received. In the 110 end, north of winze, the lode is about 6 ft. wide; it is more or less the same as last reported, yielding rich dry stamps mineral. In the winze, in the bottom of the 110 the lode is about 6 ft. wide, composed of quartz, rich bunches of pyrites, and a little grey silver; it has every appearance of being a strong and lasting course of mineral. In the stope in back of the 110, north of winze, the lode is above 8 feet wide, much the same as last reported, yielding rich dry stamps mineral. In the cross-cut west of the 110 the ground is hard for driving. In the winze in bottom of the 90, on flookan, the ground is favourable for sinking. In the winze in bottom of the 100, on flookan, the ground is favourable for sinking. The new shaft cutting down below the 50 was cut down 2 fms. 2 ft. 3 in. last month; it is carried down 11 ft. long below the 50, and I shall continue it to its present length. The European and native timbermen have been employed fixing timber and repairing Illingworth's shaft, securing plate in the 100, fixed one bob in the 100 for pumpwork, and sundry other work in the mine. The reason that we have not more mineral sent to surface last month is for want of a new whim-chain, and men to work the mine; the chain is very thin and rotten, and I cannot depend on drawing a kibble of stuff to surface without it breaking, and it requires a timberman and four or five assistants every day to keep the shaft in repair. The native miners employed last month were 68 men, and the average time they worked was only 16½ days each. I cannot make any great progress in the mine until I have more men, and a new whim-chain. The prospect of the mine is very good, and the quality of the lode throughout the mine worth recording. In the short stopes of the champion ground there is at present an increased proportion of quartzose matter, but this circumstance is not of consequence.

LAGUNAZO.—The latest advices state that in sinking the shaft in the lake a mass of very good ore has been met with, which will yield, it is said, about 3½ per cent. of copper.

CLUNES QUARTZ (Port Phillip).—H. A. Thompson, July 22: The supply of quartz has been well kept up during the past month, and the yield of gold has improved, although the quartz is coming from the same forehead as before.—Welcome Vein: They are now driving to this from No. 5 level east vein, and are in about 110 ft. The vein has also been cut outside our north boundary at 280 ft. In depth, looking as well as it does in our ground.—East Vein: The two stopes working in the north end, on No. 3 level, are exhausted, and the south stope, in the same level, is stopped until the No. 2 level is reached. The south stope in No. 4 level is still working.—Robinson's Vein: The winze at the south boundary has been taken down to No. 5 level, where it discovered an extensive encroachment made by the Criterion Company. They are securing this ground and driving towards the whim-shaft to meet the drive from the No. 5 south cross-cut. As soon as the drives meet a whim will be started at the south whim-shaft, which will raise from 120 to 150 tons of quartz per week, while the north engine-shaft is being sunk to the required depth.—Western Vein: There is no change to report in the stopes at work. A winze has been sunk at the north boundary to prevent encroachment.—North Engine-shaft: The engine is now fixed, the boilers built in, and the foundations completed. A portion of the winding gear is up, and the rest is daily expected. The pumps have also been contracted for. A dividend of 5s. per share has been paid since the 19th of June last.

THE NEW COPPER MINES IN SOUTH AUSTRALIA.—Respecting the mining operations at Wallaroo, and in the northern districts of the colony, it is remarked by the *South Australian Advertiser*, of July 25, that "At Wallaroo several of the mines have so much water in them that it is not likely the work will be resumed until machinery has been put up for drying the mines. The prospects of most of the mines, both at Yorke's Peninsula and in the North, are very promising. Many persons are, however, of opinion that, however good the mines may be at Yorke's Peninsula (Wallaroo), those at the North will eclipse them, both as to quantity and quality."

DEED.—At Devonport, on the 12th inst., aged 67 years, Captain N. ANTHONY, of disease of the heart of long standing, attended with dropsy. Capt. Anthony was well known in the western counties as the manager of the Union Tin Smelting-works, Beerferrie, and his loss is deeply regretted by a large circle of friends.

Mining Correspondence.

BRITISH MINES.

ABERDOVEY.—A. Ede: The ground in the cross-cut at the 42 has every appearance of a favourable change, and we are daily cutting some good branches of lead, which are evidently thrown from the south lode, as we have now about 9 fms. to drive to intersect the main lode (if it bears the same underlie as at the 32). The stopes on the main lode, at the 32, are producing from 1 to 1½ ton per fm., and a new stope set in the 32 is producing fully 1 ton per fathom. In the stope at the 12 the men are producing some good work, and there is still a large quantity of ore to be taken away from here. The surface and dressing operations are going on favourably, and we have shipped this week 27½ tons of lead ore, and shall have about a similar quantity ready in another month.

ALT-Y-CRIB.—J. Hughes, Sept. 14: Deep Adit: The lode here is looking promising, with small spots of lead, but not to value.—No. 1 Adit: There is ore still in the winze sinking under this level on the north-west branch, but not rich.—No. 2 Adit: The stope in back of this end is just the same as last reported. There are some spots in the end at present. The stope by the first winze is not quite so good this week.—No. 3 Adit: The lode here is about 18 in. wide; we have seen no lead here yet, but I believe the appearance of the lode is improving.

BEDFORD CONSOLS.—Capt. Mitchell, Sept. 19: In the middle adit level the north lode is about 2 feet wide, composed of spar, murex, and a little copper ore. The No. 1 south lode has become very small at present, but I hope to see it open out again in course of a short distance further driving. The ground in the cross-cut south is a little harder for driving at present than it has been for some time past. Bickie's pitch, in back of middle adit level, is poor. Bull's pitch, in back of the 27, is a little improved; the lode will yield about 1 ton of ore per fm., and looks promising for further improvement.

BORRADAILE.—W. Dixon, Sept. 19: We are working on Gill's stage, where we have four men cross-cutting to intersect a waddy vein driven on at Charlton stage below, and from which we have returned some small bunches of wad of the first quality. At Jim's level, below Gill's stage, we have four men driving on the cross vein between Robert's east vein and Leek's vein, where we have obtained 10 lbs. of first quality black lead, and the appearance is promising for more. The ramifications of Grand Pipe we have fully proved, and have discontinued the works at this point for the present.

BROWN FLOYD.—James Lester, Sept. 19: We are making good progress in opening on No. 1 lode from the cross-cut, in the 40; it is now extended west nearly 5 fathoms, and is principally composed of carbonate of lime, and small branches of lead and copper ore, occasionally intermixed. It being now a long distance to wheel to the shaft, we are about to lay down rails to discharge the stuff. The lode in the winze sinking below the 17, on the north lode, is much of the same character. I have every reason to believe the ore portion of the lode is dipping west, as we had very good ore for the first 3 fathoms sinking; the lode at this point is from 4 to 5 fathoms wide, therefore a winze sinking in it is but a small trial as to what the value may be when stope away entirely. I have suspended the rise above the 17 on account of the air being so bad, and put the men to clear a place at the west end of the new adit to drive another cross-cut to the south lode, at 70s. per fathom. I calculate we shall have to drive about 14 fathoms, and it will come in about 14 fathoms below, where Thompson's cross-cut intersected the south lode. I have every reason to believe it will lay open a very good piece of mineral ground. The lode driving west of Thompson's cross-cut is about 4 feet wide, not rich, but of a very promising character, containing a mixture of lead and copper ore, and yielding of the former about 8 cwt. per fm. We have six men opening this level as fast as possible.

BRYNFORD HALL.—T. Pierce, Sept. 19: In the 100 yard level, on the Millar vein, we are driving out north-east and south-west for the heading and hanging sides of the north-east and south-west veins. The ground that we have gone through north-east is composed of limestone, tumbled, clay-spar, and nice lead ore, but we have not met with the lode yet. The driving south-west does not promise so well yet. We have discovered a very nice rib of ore in the bottom of the level, but we have no room to make a trial on it till the beginning of next month, which will be a fortnight next Saturday. This appears well. The north cross-cut, from Page's shaft, is without any alteration since my last report. Bostock's vein appears a deal better than it was when last reported upon.—Grainger's Shaft: We have had the bottom of this to-day, but we are unable to state whether the vein has been cut much or not in this part, but we shall prove this very soon. We have two men driving from the lode on one of the veins, which promises well.—Lloyd's Vein: The driving west continues very hard, and we expect to see the bottom of the east end in nine days from this date. All the ground that we have seen in this end is very promising.—Simon's Shaft: We have reached the bottom of this, and found that the vein has taken a throw north. We have begun to drive from the lode west on the vein to get the forebrest of the old workings. I expect to prove this very soon. The tributaries do not go on so well as usual.

BRYNTAIL.—James Roach, Sept. 19: The 25 cross-cut is driven into the lode about 2 fms., chiefly consisting of clay-slate and quartz; at present we have a great quantity of the latter, with a little sulphur, and occasionally spots of lead ore. There is a great quantity of water percolating through the forebrest, which indicates our approach to large veins on the north wall of the lode. The 10 is still yielding pieces of lead ore, but there is no alteration in the character of the lode during the past week. The rise above the 10 we shall communicate with the surface in a short time, when I expect in stopping the ends of ground to find them profitably productive.

BULMER AND BASSET UNITED.—Wm. H. Pascoe, Sept. 19: I see no change of importance to report on since my last. The 80 west still has a very promising appearance, and letting out a great quantity of water. The granite is much of the same character as in the adjoining mines, in which the lodes were found productive.

CAMBORNE CONSOLS.—W. Roberts, Sept. 18: In the 50, driving east on the caunter, the lode is 1 ft. wide, composed of spar, murex, blende, and stones of ore. All the other workings are progressing favourably, but without any improvement to notice since last reported.

CARADON CONSOLS.—W. Rich, Sept. 17: There has been no alteration to notice in any part of the mine during the past week. The different points of operation are forced on as fast as possible, and good progress is being made in driving and sinking.

CARDIGAN CONSOLS.—J. Sanders, Sept. 16: During the past month the following work has been accomplished:—Quarry shaft is sunk 1 fm. 5 ft. below the deep adit, ground cut for eastern, the eastern put in, and the lift fixed in it. The lode in the shaft is yielding stones of ore occasionally, but not to value. The deep adit is driven east 5 ft. 6 in. below the level at present. The deep adit is driven west 3 fms. 4 ft. 6 in. yielding stones of ore occasionally; the lode at present is looking a little better, with a branch of copper ore in it about 3 in. wide, and likely to improve. A cross-cut has been driven north in the 30 east 1 fm. 6 in., which is through the lode in that direction. A cross-cut has been driven south in the same level 2 fms. The cross-cut south in the 30 west has been driven 1 fm.; this cross-cut is now 14½ fms., and not through the lode as yet. A cross-cut has been driven north in the 20 west 2 fms. 3 ft. 6 in., which is through the lode at this point. A cross-cut has been driven south in this level 1 fm. 5 ft. 6 in. Some old workings have been cleared out in the western part of the sett, where we found a small shaft about 4 fms. deep; the lode in this place is from 2 to 4 ft. wide, composed of clay-slate, with a great quantity of blende and some lead and copper ore in it—a very promising lode for lead ore in depth; I intend to sink a fathom or two on it to prove it a little deeper. Saturday being our pay and setting-day, the following bargains were set:—Quarry shaft to sink by six men, at 15s. per fm. The deep adit to drive west, by four men, at 5s. per fm. The deep adit east is not set. I intend to drive a cross-cut south at this shaft to prove the width and value of the lode as soon as it is convenient to do so. The cross-cut to drive south in the 30 east, by four men, at 6s. per fathom. The cross-cut to drive south in the 30 west, by two men, at 8s. per fm. The cross-cut to drive south in the 20 west, by four men, at 5s. per fm. The cross-cut to drive south in the 20 west, which was set last setting-day for two men, the lode in this pitch is yielding about ½ ton of ore per fm. We sampled on Saturday 8½ tons of lead, and 7½ tons of copper ore.

CARMARTHEN UNITED.—R. Sanders, Sept. 16: In the 42 north the last few feet of driving has not been so productive as formerly, owing to a soft channel of ground crossing the end, which has disordered the lode. We have gone through it, and the lode is again improving, producing 14 cwt. of lead per fm.; the air in this end is very bad. We are preparing a duck-machine, to be worked by the engine, pipes, &c., so as to force fresh air into this end. When this is accomplished the men will go to the 42, and expect the winze, so as to facilitate the communication with the 32. In the winze sinking from the 32 the lode will produce 1 ton of lead per fm.; the water in this winze being so very quick we have entirely failed to keep it with barrels. We have now fixed our small 4-in. lift in it, to work with a breakfast. One extra man in each core can now easily master the water, and I hope by this means to make fair progress in sinking. The 22 north, in the caunter, is just as last reported, producing occasionally good lumps of lead. The stopes in bottom of the 22 south will produce ½ ton of lead per fathom.

CARN CAMBORNE.—Wm. Bishop, sen., Wm. Bishop, jun., Sept. 17: There is no change to notice in the 13 or eastern adit cross-cut since our last report. The end of a winze cross-cut, on new south lode, is still greatly disordered by the cross-course. The east end, on new south lode, is split by a horse of granite, worth from 4l. to 5l. per fm. The western ditto is worth 12s. per fm., but spare for driving. There is no change in the western end or stopes on adit lode.

CEFN BEWYNO.—Sept. 17: The lode in the 80, going east of Taylor's shaft, yields 15 cwt. of ore per fm. The lode in the 68 east yields 10 cwt. of ore per fm. The lode in the 68, west of cross-cut, 70 fms. west of Taylor's shaft, yields 14 cwt. of ore per fm. The lode in the 56, east of Taylor's, is from 2 to 3 ft. wide

CHARLOTTE UNITED.—R. Kendall, Sept. 18: Our new lode at the 60, west of the cross-cut, is very much improved; we broke 1 ton of ore last night from it; the lode is now worth about 81, per fm. This lode is looking well.

CLARA.—J. Lester, Sept. 19: I am to-day going to dial the Pontrebyd quarry shaft, level and cross-cut. There is a lode ahead of the forebreast of the cross-cut at the 20, running east and west, which we can, if you please, reach by continuing that cross-cut a few fathoms; I will give you the exact length in my next report. We are getting on well with the work at surface, but there is still a great deal to do to get the rods changed from the 24 to the 32-ft. wheel, to erect the drawing-machine, &c., and to get the machinery in good order for economical development. There is no alteration underground. The rise from the 32, and the winze from the 20, opening to meet each other, are only about 5 fms. apart now, and good ore is coming from both places. The ends of the levels are much the same as usual. I have fixed the pay for the last Saturday in each month.

GOLLA COMBE.—S. Mitchell, Sept. 17: During the last week the pitches throughout this mine have improved. The 50 fm. level cross-cut is extended north of Morris's engine-shaft 20 fms.; the ground is still easy for progress.

CORNUBIA TIN.—Wm. H. Gray, Sept. 19: The lode has been picked at the new shaft by the 30 fm. level cross-cut, and the sample taken therefrom gives a yield of black tin equal to one-fourth of the weight tested as taken from the lode. The water has very much increased, and an accident to the flat-rods (which are too light for the purpose) has kept us from seeing further into it to this moment, but as it has every appearance of a large lode, and the workings immediately over, show great productiveness down as far as their means of opening permit, I am fully satisfied that the best results will be obtained.

P. FINE.—Sept. 18: We have reached the lode in the cross-cut in west end. I have brought up from underground some splendid work. The stone I sampled produced one-fourth tin. We have only opened on it in the bottom of the end as yet, but from its appearance I judge it is a large lode, and I do not hesitate to say it is a good one. You shall have more fully particulars in a post or two, as it will take some time to get through it, as a large stream of water is issuing from it, which requires care, being in soft, decomposed granite. I shall more fully test the quality of the work produced this afternoon, being now too late for post to have time to do so.—P. S. Since I wrote the above, the men have brought from the end a stone equally as good as what I have sampled.

CROOKHAVEN.—H. Thomas, Sept. 16: The ventilating shaft is holed from the 20 to the 40; this has caused a good current of air to the engine-shaft, and more men are now employed in sinking the shaft below the 50. I now hope we shall get on without let or hindrance for some time to come. The men who were sinking under the 20, on the flooken lode, are removed to the 40 cross-cut north, where they were taken from. There is no change of ground in this end to notice since last reported on, 40 fms. west on south lode; this end is looking much as usual, mixed up with branches of yellow ore. The stent is finished, and I propose settling a winze to sink under the level; this will not only prove the lode, but will act as a ventilator for much deeper working; if this is not approved of, I will stop it at once.—Western Trial Shaft: We are still going down in a fine channel of ground—white killas and flooken.

DALE.—Robt. Nines, Sept. 18: The water has been in the bottom since Sunday, caused by the torrents of rain we had during the three successive days of Friday, Saturday, and Sunday, consequently we have not been able to break a single ounce of ore for the week, and I fear that it will take us the week through to get it out, which is aggravating, as it will destroy a good sampling, and besides within the last few days the old and new carriage of ore seemed to be coming together, which I am so anxious about, for should these carriages come together we cannot fail to have a very rich bunch of ore. The water shall be out as soon as possible. During the past week we have sunk 4 feet in the new shaft, which is now down from surface 29½ fathoms; we would have sunk more, but we have been putting in some timber.

DEVON AND CORNWALL UNITED.—T. Neill, Sept. 17: We have commenced cutting pit, &c., preparatory to sinking the shaft below the deep adit level. At William and Mary, in the 12, west of water-wheel shaft, as well as the 10, east of engine-shaft, the lode is looking very promising, and producing good stones of ore. With the line of rods and necessary work attached, everything is being pushed on as fast as possible.

DEVON NEW COOPER.—P. Hawke, Sept. 14: In cross-cutting the great north lode in the 78 we have met with a breast head, which is most beautifully defined, the product from this point consisting of solid blocks of munda; a feature of no small interest. As the prospect is so good, we are proceeding as usual. The country is in the neighbourhood of the lode, and is very rich in munda and yellow copper ore, which pass obliquely into the lode. I hope by Saturday next to have rather more than 7 fathoms completed below this point. A portion of the breast-head that has been met with in cross-cutting the great north lode in the 78 has been broken through, and the product is principally a mass of munda. I do not consider this to be the leader passed through in the 68, but believe it to be yet ahead. The water issues plentifully and with great force from the extreme point of the cutting. The steam-engine, pitwork, &c., work well.

DRAKE WALLS.—T. Gregory, Sept. 18: In taking down the branches in the 102, east of the shaft, to-day we find them improved, and will produce tin to the value of 100, per fm. with a promising appearance. The branches in the 92 east are producing saving work. The branches in the 80, west of Betley's shaft, are producing good stones of tin. The branches in the 70, west of Brenton's, are producing stones of tin and copper ore. The branches in the 50 and the 60, west of Brenton's, are moderately productive, and opening profitable ground for stopping. We have no change to advise in the underground department since last report.

DULTA.—J. Martyn, Sept. 17: Dyer's lode is 9 ft. wide, producing capital work for tin, and is improving in size and quality the further we go east towards the killas. Shimmer's lode is still 4 ft. wide, producing good work for tin. The new lode has some improvement. But the lode is looking much better; I expect a good change here as soon as we get out of the disordered ground, and just under where we have seen the lode 10 ft. wide, in one of the trial shafts. We are doing our best with our present stamping power, and the tin is turning out very well, considering our limited means. We are in want of a boiler and 20 more stamps' heads, when we should be enabled to pay all costs, and make good profits.

DYFNGWYM.—E. Davies, Sept. 16: I have considerable improvement to report since last week. The 50 has been driven further east, and opened on a fine course of ore, which improves every day. The 32 has been drawn through the long patch of barren ground, and just opened on a fine course of ore, as anticipated; the driving of this level will now be the weekly interest, as it will be going through the rich bunch of ore. The only level at present without ore in the forebreast is the 40; the stipes in it yield from 1 to 8½ tons per fm. As soon as the winze is holed it will be driven, and will not be long in reaching the ore. The 32, 50, 60, and 70 ends, are all looking well, and the stipes in the backs the same.

EAGLEBROOK.—H. Tyack, Sept. 18: The ore in the winze sinking from the 10 to the 20 is dipping west very fast; we are now down under the 10 fm level 3 fms. The 20 and 30, west of the engine-shaft, are both without any alteration since my last. The dressing and surface operations are proceeding as usual.

EAST ALFRED CONSOLS.—H. Skewes, Sept. 18: South Lode: In the 70 west the lode is increasing in size, being now 1 ft. wide, with a kindly appearance, and water freely issuing from it. In the eastern end the lode is 1½ ft. wide, composed of spar, munda, blende, and producing occasional stones of copper ore. In the 50 west the lode is 1½ ft. wide, worth 100, per fm.; we have two pitches working in back of this level one at 6s. in 12, and one at 6s. 8d. in 12. In the 38 west the lode is 2 ft. wide, worth from 28s. to 30s. per fm.; driving at 4s. 6d. in 12. In the 18, west of the lode, we have two pitches in back of this level, one at 4s. in 12, and one at 6s. 8d. in 12. No change to notice in any other part since last report.

EAST BEAM.—J. Webb, Jun., Sept. 19: The engine-shaft is sunk 13½ fms.; the ground is letting out more water, and is not so favourable for sinking as when last reported on, but we have every reason to expect a change for the better shortly. The engine works well, the rods, bobs, and pitwork being laid out in a sound and substantial manner. We have a strong party of men in the shaft, and shall soon reach a 20 fm. level, where we shall lay open the lode east and west. We are pushing this on with all speed, in order to get tin in the market as early as possible.

EAST CARN BREA.—T. Ganville, Sept. 18: In the 40 east the lode is yielding 6 tons of ore per fm. In the 40 east the lode is yielding 1 ton of ore per fm. In the 30 east the lode is yielding 2 tons of ore per fm. In the winze sinking below the 20, west of the cross-cut, the lode is yielding 2 tons of ore per fathom. In the winze sinking below the 36, east of the cross-cut, the lode is yielding 2 tons of ore per fm.

EAST DEVON GREAT CONSOLS.—T. Richards, Sept. 17: We are getting on with cutting pit, &c., at the 52 as fast as possible, in ground very favourable for progress. The lode in the 40 west, as also the ground in the cross-cut south, present no change to notice since the report for the meeting.

EAST GUNNIN LAKE AND SOUTH BEDFORD.—J. Phillips, Sept. 19: The lode in the 36 east is 10 ft. wide, 3 ft. of which is worth 5 tons of ore per fm.; the stipes in back of this level are worth 5 tons of ore per fm. In the 20 east the lode is 3 ft. wide, worth 6 tons of ore per fm. In the winze sinking below the 20, west of the cross-cut, the lode is yielding 2 tons of ore per fathom. In the winze sinking below the 36, east of the cross-cut, the lode is yielding 2 tons of ore per fm.

EAST RHOSMOR.—J. Williams, Sept. 19: This mine is situated on the east, on the same lode as the celebrated Rhosmor Mine, adjoining shaft. The former is an extensive sett, and one of the best situated mines in the county. The lode in the 10, west of the cross-cut, is 10 ft. wide, worth 2½ tons of ore per fm.; the ground in the rise continues favourable for progress. We have suspended the driving of the 24 east, and the men are put to sink to hole to the rise for ventilation, &c., which we hope to complete in the course of a week or ten days. The lode in the deep adit is improved, being now 8 ft. wide, with a rich leader of ore 3 in. wide, and every appearance of further improvement. No alteration in any other part of the mine.

EAST WHEAL FALMOUTH.—Wm. Hancock, Sept. 18: The adit cross-cut is extended south of the engine-shaft towards the south lode 4 fms. 4 ft.; the ground is very congenial for the production of mineral. The lode in the adit end, east of said shaft, is 14 in. wide, composed of capel, spar, and tin; saving work, and looking kindly for further improvement.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Sept. 14: The lode at the engine-shaft maintains its size, and of much the same value as before stated—about 27½ per fathom for copper and tin, and in the eastern end of the shaft there is a very kindly lode. The lode in the rise above the 35 west will yield about 1½ ton of ore to the fathom—a promising lode. The lode in the 25 east is 2 ft. wide, principally quartz, green, and pebble, with a little tin and munda; altogether this is a very promising lode. We are getting on very well with the stamping.

EAST WHEAL RUSSELL.—J. Richards, Sept. 18: Homersham's shaft is in regular course of sinking below the 110, to the south of the lode in favourable ground for progress.—Homersham's Shaft: In the 110 east the lode is worth 1½ ton of ore per fm. In John's winze, sinking below the 100, on north part of the lode it is 3 ft. wide, and consists of capel, munda, quartz, and good stones of ore. In the 100 east, on the south part of the lode, the lode is 2 ft. wide, composed of carbonate of iron, quartz, munda, and stones of ore. In the 80 east, on the south part of the lode, the lode is 12 ft. wide, worth 3 tons of ore per fm. In the 85 east, on the south part of the lode, the drive is by the side of the lode; the ground is favourable for driving. In the 66 east the lode is being driven through; it is cut into 3 ft., and consists principally of capel, with a little munda and ore. In the 38, west of Hitchens's engine-shaft, the lode is 3½ ft. wide, containing quartz, gossan, munda, and a little ore.

EAST WHEAL TOLGUS.—Sept. 18: Redruth Consols Lode: We yesterday commenced sinking John's shaft below the 70. The lode in the 70 west has not been taken down since last reported on; it is 15 inches wide, containing good stones. We have not yet commenced to drive the 70 east, nor shall we be able to do so for a few days. The lode in the 57 east is small and unproductive. The lode in the 34 east is

1 foot wide, composed of peach and spar. The lode in the winze sinking in bottom of the 22 east is 20 inches wide, producing a little saving work for tin. The stipes in back of the 22 east is 20 inches wide, producing a little saving work for tin. The stipes in back of the 22 east is 20 inches wide, producing a little saving work for tin.

GARREG.—W. Sandoe, Sept. 18: In the 20, west of new shaft, the lode is 2 ft. wide, of a very kindly appearance, and is producing dressing work for lead. We are now busily engaged erecting the whim on this shaft, and hope to complete the same and get the kibbles down by the end of this week. In the 20, going west on the old lode, there is no change since last report.

GOGGINAN.—Sept. 17: The lode in the 100, east of Gilbertson's, is 4 feet wide, containing a little ore, but not sufficient to value; this is a kindly lode, and likely to improve shortly. In Bryn Pica shaft, sinking below the 60, the lode is principally composed of soft clay-slate and spots of lead ore, but not to value. The tribute pitches throughout the mine are without any alteration to notice since last report. The dressing and all other operations are going on regularly.

GREAT CRININS.—F. Pucker, E. Dunstan, Sept. 18: The new engine-shaft will be completed in sinking to the 120 by the end of this week, when we shall at once commence driving west on the course of the lode. This shaft, as you are aware, has been sunk for the last 10 fms. on the back of the lode, which, for expedition, we consider was a judicious arrangement. From the fact that the sinking of this shaft has drained the 100, it clearly shows that the lode has continued its masterly size. The 100 has been driven 10 fms. to the 120, and during the 10 fms. driving the lode has been from 7 to 9 ft. wide, being of an exceedingly promising appearance, and producing some good ore. We shall at once commence the sinking of a winze below this level, and from all the indications which we have seen we consider that there is every probability of its improving as we go deeper. We have suspended the driving of the 90 cross-cut, north of the said shaft, and the men will be employed sinking the last-named winze. In the 100 cross-cut south, east of the shaft, the ground is favourable for driving. In conclusion, we would strongly recommend that all the bottom levels be prosecuted with vigour.

GREAT RETALLACK.—Wm. H. Reynolds, Sept. 18: In the 45 east the part of the lode in the end contains blende, munda, and some lead, and is of a promising character. The stipes in the 30 are yielding fair quantities of blende.

GREAT SOUTH TOLGUS.—J. Daw, Sept. 18: Friday last was setting-day. The lode in Lyle's shaft, sinking below the 125, is 1 ft. wide, unproductive; set to nine men, at 28s. per fm. The lode in the 125, west of Lyle's shaft, is 2 ft. wide, producing some good stones of copper ore; set to four men, at 31. 10s. per fm. In the 112 west the lode is 2½ ft. wide, producing a little ore, a very promising lode; set to four men, at 31. 10s. per fm. In the 100 west the lode is 1½ ft. wide, producing 1½ ton of ore per fm.; set to four men, at 31. 3s. per fm. The lode in the 90 west is 1 ft. wide, unproductive; set to two men and two boys, at 31. 10s. per fm. The lode in the 40 west is 2 ft. wide, producing 1 ton of ore per fm.; set to two men and two boys, at 31. 5s. per fm.

GREAT TYWANHALL.—Capt. Hampton, Sept. 18: We are putting in skip-road as fast as we can in the various shafts that we may clear and draw from the 80, and even below that, as during the dry weather we may be able to make good speed in forking, and we expect the 80 will soon be drained. As far as we can see the 80 it looks satisfactory, and will doubtless turn out large quantities of ore. We have between 30 and 40 pitches now working, and the men generally are earning fair wages at their respective tributes. As soon as the 80 is clear, and we have in a tram-road from east to west in that level to facilitate our putting the stuff to shaft, the returns will be considerably increased. Our various pitwork operations, by driving the levels, cross-cuts, &c., can be arranged directly the men have finished cutting the shaft, which will be in a forward state. The new engine-house is being built satisfactorily, and the walls will soon be up to take the roof. The engine is being delivered; good portions of it are already on the mine, and no time will be lost in getting this machine at work to be prepared for winter.

GREAT WEST SETON.—Henry Cowling, Sept. 19: I have not much alteration to report since my last. The lode in the sink is full 6 ft. wide, of quite a metalliferous character, showing more copper as we get down on it; in fact, no lode can show a better appearance. I am surprised there is no more doing on such a fine lode, situated as it is in one of the best copper districts in all Cornwall, and close upon that celebrated mine as the Wheal Wren, which has so bountifully paid the shareholders for their outlay; 126,000l. has been returned in dividends, and the selling price for the mine is 136,000l., making a total of 262,000l. And some of the same lodes are passing through the Great West Seton sett. Wheal Seton, North Croft, North Pool, and South and Old Tolgus are in a line with this sett. The lode we have been exploring in the bottom of the adit is the North Pool and the Great South Tolgus main lode. The lode south of our shaft in this sett is considered to be one of the lodes of the West Seton. The mines in the immediate district have returned upwards of 2,000,000l. in dividends. I am not a little surprised that you have not the engine-house up, and the engine to work; my belief is that 5000l. is ample to bring this mine into a paying state.

GREAT WHEAL ALFRED.—W. Buechholz, J. Delbridge, Sept. 18: Copper House Shaft: The lode in the stope in back of the 220, west of the shaft, is worth 177, per fm.; No. 2 is worth 177, per fm. The lode in No. 1 stope, in bottom of the 210, is worth 141, per fm.; No. 2 stope is worth 181, per fm.; No. 3 is worth 181, per fm.; No. 4 is worth 61, per fm. The lode in the 210 and west is 4 ft. wide, worth 100, per fm. No. 1 stope, in back of this level, is worth 97, per fm.; No. 2 stope is worth 207, per fm.; and No. 3 is worth 207, per fathom.

GREAT WHEAL BUSY.—J. Delbridge, J. Bryant, J. Petherick, Sept. 14: In the 120, east of Offord's, the lode is large, but poor. In the 110 the lode is from 4 to 5 feet wide, yielding ore and tin, not much to value in the 100, 16 tons per fm. In the 100, Nos. 1 and 2 winzes, 10 tons per fm. In the 90, Levett's winze, 12 tons per fathom. Kittell's winze, 16 tons per fm. Mathew's shaft, 17 tons per fathom. The 90, east of Mathew's shaft, 8 tons per fm. The 80, at Mathew's shaft, 9 tons per fm. The 80 east a little tin. The 70 east a little tin. The 100 west and 90 rise stamping work for tin. The 80 rise, against King's shaft, lode large and poor. In the 70 cross-cut north the ground is favourable. Other things much as usual.—At Boscawen we are in readiness to work, but having to secure the adit will require to dry before we can send back the water. On Monday things will be all right for drainage.

GREAT WHEAL FORTUNE.—R. Pryor, J. Daniel, J. Hosken, Sept. 18: In the rise in back of the 80, east of Harvey's engine-shaft, the lode is 4 feet wide, worth 97, per fathom.—Carmel: In the 68, east of Painter's engine-shaft, the lode is 5 feet wide, worth 707, per fm. In the 36, west of Crotch's, the lode is 2 ft. wide, worth 51, per fm. In the winze below the 48, west of Hosken's, the lode is 2½ ft. wide, worth 127, per fathom. In the 58, east of said shaft, the lode is 3 ft. wide, worth 167, per fm.; in the same level west the lode is 3½ ft. wide, worth 107, per fm.; in the stipes in back of this level the lode is 4½ ft. wide, worth 247, per fathom. At Hosken's flat-rad shaft, below the 68, the lode is 5 feet wide, saving work; at the 68, west of ditto, the lode is 4 feet wide, worth 307, per fathom. No other change to notice. The black tin sold on Monday last was 16 tons 1 cwt. 10 lbs., which realised 1176s. 8s. 4d., and shall sell another parcel to-morrow, about 12 tons.

GREAT WHEAL MARTHA.—H. Rickard, Sept. 18: The shaft is now sunk 12 fms. below the 40, in a good channel of killas for the production of copper ore, having about 9 feet further to sink for trip-plat, boares, and cistern; the ground is a little stiffer for sinking, but by no means unkindly. The trip-plat to the 20 is nearly completed; the lode here is producing excellent rocks of yellow copper ore, this being over the point where the lode yielded so largely in the 40, the backs standing in whole ground to the 20. The tribute department is much as usual, yielding a fair supply of ore. We shall sample on the 37th inst. over 300 tons, leaving in the mine some quantity of ore, the whole of the machinery is working well.—Sept. 17: I estimate the 300 tons for sale will bring considerably over 1000l., and the ore we have on the floors, and also broken underground, will bring more than 2000l.

GWYDYR PARK CONSOLS.—W. Smyth, Sept. 19: We have taken down no lode in the deep adit this week, but will do so next. The ground is just the same as when I wrote last. We are getting on well in driving.

HAWKMOOR.—J. Richards, J. T. Phillips, Sept. 17: The lode in the stipes, in back of the 25, east of Rowe's rise, continues to produce about 3 tons of copper ore of fair average quality per fathom. We are getting on tolerably well with preparing another parcel of copper ore for the next sampling.

HERWARD UNITED.—T. Pierce, Sept. 19: Dunsford's Sump: On Page's vein the bottom of this sump appears very well, the vein being 10 in. wide, full of nice bowse, and if this continues as it appears at present, I have not the least doubt but that it will be a very rich mine soon. Perry's sump, below the 80 yard level, east from Dunsford's shaft, appears rather poorer, the vein being small, but very promising. We are looking for further improvement daily. The tributers are going on as usual.

HINGTON DOWN CONSOLS.—T. Richards, Sept. 18: The 110 west is producing 407, worth of ore per fm. The 85 west, although not so productive for the present, is still a good course of ore, and will produce 507, worth of ore per fm. There is nothing new to advise you of in any other part of the mine.

HUCKWORTHY BRIDGE.—J. H. Rodda, Sept. 18: Hitchens's engine-shaft is sunk below the 25 fathom level 14 fathoms. We have 3 feet more to sink, which will be done in the early part of next week, then we shall drive west to get back under the shoots of ore gone down in the bottom of the 25. The 25 east is set to drive by two men, at 27, per fathom; lode much the same as reported last week.

HUCKWORTHY BRIDGE.—J. H. Rodda, Sept. 18: The lode in the 75 east is 2½ ft. wide, yielding about 2 tons of ore per fathom, worth 51, per ton. No lode taken down in the 30 east during the past week; but, from the indications seen, there is every reason to expect a large and productive one when it is taken down. The tribute department has somewhat improved in the past week; two pitches in back of the 45 are looking better, and if the same prospects continue we hope to sample by September month from 100 to 100 tons of ore.—Eastern Mine: The lode in the 70 east is about 2 feet wide, composed of quartz, spar, munda, and spots of copper ore, and the water is daily increasing in the end, which we consider a good indication of a porous lode ahead.

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bottom of the 30 west is composed of ore, peach, and munda, worth of the former 3 tons, or 127, per fathom. In the 20 east we are pleased to say a change for the better has just taken place in the lode, which is large, composed of munda, peach, quartz, and some very good stones of ore, carrying a quantity of green carbonate of copper. In the 10 east the lode presents much the same appearance as for some time past, composed of munda, peach, and ore, worth of the latter about 81, per fathom. The pitches and all other parts of the mine continue to present much the same appearance and character as when we last reported.

LANERCH-Y-BAIDD.—R. J. Edwards, Sept. 17: In the cross-cut from the Lanerch-y-Baidd shaft we have just cut the vein, at a distance of 4½ fathoms from the shaft; the lode is large, and composed of shale, carbonate of lime, clay, &c.; it contains no ore at the present shallow depth, but the ground is of a very kindly and promising character. We have commenced sinking a sump on the lode, and the ground being soft and easily worked, we expect to make rapid progress in proving the lode in this part of the mine. The Craig Fadoe engine-shaft is now down about 40 yards from the surface, and is in a strong north and south cross-course, on which a level has been driven (about 2½ fms.), communicating with the old workings, which extend in east and west direction on the course of the vein for a distance of about 30 yards; the ground is hard, and contains strings of solid lead ore, averaging in places 2 to 3 inches in width. We have not yet been able to reach the bottom of the old workings, on account of the dead water, we shall, therefore, continue sinking the engine-shaft, where I am of opinion that the most important trial in depth yet remains to be made.

LONG RAKE.—F. Evans, Sept. 18: Since this day fortnight the 48 has been communicated with the trench sunk below the 44, and we are now stopping the bottom of this trench eastward. We are also stopping the back of the level and the western end of this trench. This stop, together with the eastern one, will produce a level course of ore in this trench. This stop, together with the eastern one, will produce a level course of ore in this trench. This stop, together with the eastern one, will produce a level course of ore in this trench.

MAUDLIN.—J. Tregay, Sept. 14: West Mine: The lode at the new shaft is very large; from the north wall we have cut in south 9 ft., but have not reached the south wall yet; it is principally composed of capel, peach, spar, and munda. No alteration in any other part since my last.

MILLIN.—W. Sandoe, Sept. 18: There is no change in this mine worthy of notice during the past fortnight; the different bargains throughout the mine continue just the same as when last reported on.

MICHELL.—W. Sandoe, Sept. 18: The lode in the end going east and west from bottom of the new shaft is much the same as when last reported on—about 2 ft. wide, of a highly promising character, and producing occasional stones of lead

YARNER.—R. Barkell, Sept. 18: South Lode: Thomas's slope, east of shaft, is worth 4 tons per fathom, and likely to continue for some time. The lode in the 30 west is 2 feet wide, and will produce 3 tons per fathom. We have a strong stream of water coming from this end, which we think a favourable indication. The 20 west is tight for driving; the lode is producing stones of ore. No lode taken down in the winze sinking below this level; we are letting it stand before we fix the tackle, in order to take up the water. The ground in the 30 east, on north lode, is easier for driving; ore 3 feet wide, still unproductive.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

ANBERTSWITH, SEPT. 18.—The falling off in the price of lead has had a depressing influence on the mines of this country, and a great many men have been discharged, as a measure of economy, to counteract the depression of price. The lodes of Grogwin and the Llaburne mines, Cwmystwith and South Llaburne, continue to present good masses of ore, workable at a profit, at almost any price seen for lead for the last quarter of a century, but, of course, the profits would be smaller. The lodes of the silver district of East Darnen and Cwm Erfa are very productive, and many of the younger mines afford much encouragement to the miners of the coming age. Bryn Hoped, North Hafod, and Silver Bank are young mines of much promise. We have nothing new in other matters; this interesting place is, however, certainly beneficially affected by the opening of the railway so near Llanidloes, 28 miles from here. I wish we could get it through to Milford.

NORTH POOL.—A company is in course of formation for re-working this mine, which has much to recommend it, and is universally praised by the miners of the locality. It contains several lodes and cross-courses in a very long set, and situated in the very midst of the best mines of Cornwall, between the Tolgus and Setons, on the course of their lodes. The greatest profits of the district (for the ground opened) were made at and above the 70, being 61,500l. in eight years; but only one-hundredth of the ground, to the profitable depth of the district, has been worked, and, therefore, sufficient has been left standing for 100 years' exploration, if as productive as its neighbours. It is gratifying to see such a plausible property offered to the public, and being, as I understand, under limited liability, will, therefore, be an unusually safe and legitimate investment for the capitalist. — A FRIEND TO MINING.

GREAT ALFRED.—We are requested to say that those desirous of working the mine are anxious that every shareholder should express a wish either to continue or discontinue his or her interest in it.

WHEAL GRYLLE.—The proceedings at the general meeting on Wednesday (reported in another column) were peculiarly interesting. The mine is turning out extraordinarily well, and an ample quantity of tin is now being returned at a good profit. Within the past month the shares have risen to three times their former value, and the upward movement has not yet ceased. Last month's sale of tin realised 1000l., against which there was only 500l. cost, leaving 500l. profit.

CAMBORNE VEAN.—An improvement has taken place in the 140, which is now producing fine stones of rich ore.

CUDDRA.—The lode in the 60 for nearly 70 fathoms in length has produced good paying work for tin. The stamps and apparatus are now sufficiently completed as to enable all the processes from the stone to the clean tin to be carried out. An additional number of men have been engaged, and increased stamping power will be applied in proportion to the increased quantity of tinstuff raised. The first sale of tin will take place in a fortnight, from which time regular monthly sales will be made.

OLD TOLGUS.—The lode in the 132 has improved, being now worth 1/4 ton of good yellow ore per fathom, the rest of the lode being composed of blende, muddle, and quartz. The 42 is also improving, giving rich stones of ore. The hills have improved in colour, being now of the same description and colour as that in which the large deposits of ore had been found in the adjoining mines. It is expected by the agents that, by opening out on the course of the lode west, a good mine will result.

SOUTH FRANCES.—An improvement has taken place in the 90, but the other parts of the mine are said to be poorer.

GREAT CRINNIS.—During the past week this mine has been inspected by Capt. Puckey and Dunstan, of Par Consols and West Fowey. They express themselves highly pleased with the general appearance of the lode in the 100 west, which is being carried for 9 ft. wide, and composed of quartz, chlorite, prill, and rich yellow copper ore, giving every indication of being near a large deposit of ore. This lode is 35 fms. west of the shaft, and a winze has been commenced towards the 120. The engine-shaft is down to the 120, and has been sunk for the last 10 fms. in the kilns on the north wall of the lode; but, notwithstanding the 100 end being 35 fms. west of the shaft, which is not sunk on the course of the lode, the 100 end is drained by the shaft. The lode will be cut into the course of next week in the 120, which will be opened on west with all possible speed. The general prospects of the mine are spoken of as most encouraging.

NETHER HEARTH.—The shaft at this mine is steadily sinking by six men, and has now reached the whim at a depth of 10 fms.; it is expected to intersect the vein shortly. The recent floods have laid bare two powerful veins in the stream near this shaft.

MINING IN THE ASHBURTON DISTRICT.—The recent important mineral discoveries in the Ashburton district have done much to prove that there is every prospect of a revival of the character of the locality as a tin-producing one, has caused considerable attention to be directed to settling adjoining those already worked; and amongst the more recent projects is the West Beam Mining Company, which has been constituted upon the limited liability principle, with a capital of 20,000l., in 1l. shares. The lodes are described to be larger and to contain more valuable deposits of ore than those in the Ashburton United Mines adjoining, the strata being compact kilns and granite. The mine was suspended when steam-power was required, but that the mine was rich may be judged of by the fact that from a single shoot of ore on the Great South Beam lode will worth 11,356l. 7s. 2d. was raised, and that at the present time the same tin would sell for nearly 20,000l., the market price having nearly doubled. The transfer of the property is to be secured to the company for 5000l., three-fifths of which the vendors have agreed to accept in paid-up shares. The capital proposed to be raised is considered amply sufficient to fully develop the mine; indeed, it is regarded as more than probable that only a portion will be required to be called up.

EAST PROVIDENCE.—The new shaft, near the Providence boundary, is being sunk with all speed, and is already opening up good tin ground; so also is the level going east from it. They have already gone over several fathoms of profitable tribute ground, from which returns are just commenced to be made. This mine, it is expected, will within a few months prove a great prize, and will well repay the steady holders of shares. The rich Providence workings being only 45 fms. from their operations, and rapidly approaching them, is enough to show the prospects—strata and lodes being the same in each.

GREAT ALFRED.—It is stated that a movement is on foot for continuing the working of this mine under a new company. The shareholders will be allowed to continue their former interest. The management will be local, with, perhaps, an office of reference in London.

GREAT WHEAL FORTUNE.—Capt. Joseph Tregoning (Messrs. Bolitho's inspecting agent) thus concludes a report on this mine, after an examination made on the 24 inst.:—"Your mine is admirably situated as a mining property, in which you have a lode from 3 to 5 feet wide, rich in character, and levels extended on it upwards of 350 fathoms in a beautiful stratum of clay-slate, which is traversed by large cross-courses throughout; that the principal course of tin discovered in the shallow levels has lengthened considerably in going down, as may be seen at the 48 and 58; and should the 68, east of Painter's, and the 68, west of Hooken's, continue rich until they communicate (and I have not the least doubt they will), a most valuable piece of ground will be laid open, which, with other parts of minor importance at present, in conjunction with the prospect of a great and valuable lode gone down quite 100 fathoms long, and worth at different points fully 50l. per fm., I do not hesitate in saying that with efficient machinery and appliances for bringing the tinstuff to surface and returning the same on the most approved mining principles, before many months elapse your highest expectations will be fully accomplished."

ROSEWARNE CONSOLS.—The prospects are reported to be very good. A great quantity of ore ground is being opened on the counter, but, as it is principally black copper ore, it cannot yet be taken away.

INDIAN GUARANTEED STOCK.—A remarkable pamphlet has just been issued through Messrs. Mann, Nepehan, of Cornhill, by Mr. James Mills, entitled "Indian Railway and Flotilla Guarantees Examined and found to be Deceitful." The argument put forward by Mr. Mills is, that from the nature of the contracts subsisting between the several companies and the Indian Government the guarantee really gives no security. He maintains, in fact, that all the Government undertakes to do is to return to the shareholders annually 5 per cent. of the capital subscribed by them, and that other items are charged against the capital in the same way; so that in some instances the whole subscribed capital will be absorbed and the companies ruined in about five years. As it appears from Mr. Mills's own admission that he has only given the Blue Book, upon which he relies as an authority for his astounding and discouraging statements, a few days' consideration, we may hope that his views may prove to be erroneous.

COAL, IRON, AND ALKALI TRADES.—In an able article read to the British Association by Mr. Richard Valpy, of the Board of Trade, on "Our Commercial Relations with France," he quoted the opinions he had received from various Chambers of Commerce, including Newcastle-on-Tyne, where the secretary had informed him that the coal and pier branches of trade will undoubtedly derive considerable advantage from the new treaty, and one manufacturer of alkali has already received orders from France, which he never had before; and the Glasgow Chamber had stated that "in the article of iron and certain other commodities upon which the action of the Treaty can be observed, the demand is gradually and steadily increasing, and, as regards textile fabrics, a confidence amounting to moral certainty is entertained that a very large increase in the trade will take place." We may also add, appropriately, here that the Master-Cutler, at Sheffield, last week observed:—"It is true, as has been said, that we have suffered very greatly from the loss of the American trade, but that loss has already been partially made up by the increase of the French trade. You will scarcely believe it, but although our exports this year have, on the whole, been 20 per cent. less than last year, and although many classes of our goods are not admitted to France until October, our exports to that country have increased 50 per cent." — *Gateshead Observer.*

"THE MEETING OF THE WATERS."—The true lovers of the beautiful and useful are offered, as will be seen by our advertising columns, the chance of securing by that most legitimate standard of value, public competition, the permanent possession of one of, if not the most beautiful spot in Ireland, certainly the most renowned, thanks to the poetical effusions of the native bard, Tom Moore. "The Meeting of the Waters," the very spot where he adjoined and enjoyed the hospilities of admiring friends, is to be sold by auction, and we hope it will fall into hands with ample means to do full justice to the unequalled elements for either one of the most delightful aristocratic residences or for an hotel of a respectable class for the reception of tourists or visitors. We remember the days when the coaches brought their heavy freights of passengers anxious to enjoy the beauties of Nature of this lovely spot and its immediate neighbourhood; but, the giant revolutioner of the tide of excursionists—the steam-engine—and the loss of day coaches from Dublin, and from the South—have of late years greatly thinned the number of visitors. However, the rapid progress of the Dublin, Wicklow, and Wexford Extension Railway, which has now the first section finished to Rathfriland, and three miles from the "Meeting of the Waters," and will in another twelve months extend to this point, with, as we hear, a station at the Lion's-bridge, adjoining the Meetings, will undoubtedly bring a fresh influx of admirers of the celebrated scenery of the romantic Vale of Ovoca, of which the poet says "There is not in this wide world a valley so sweet!" For a private residence or hotel the railway will afford all the accommodation that can be desired, without any of the many little annoyances arising from the turmoil at the principal terminus. Taking everything into consideration, we know of no spot upon which one would sooner settle down either for pleasure, business, or quietude, than the far-famed "Meeting of the Waters," particularly as it is of most rare occurrence that so compact a demesne, of daily increasing value, can be secured for posterity.

With this week's MINING JOURNAL a SUPPLEMENTAL SHEET is given, which contains the proceedings of the South Wales Institute of Engineers—the Working of thin Seams of Coal—the Bristol Mining School—the Cornish Engine—Underground Machinery—Motion of Slide Valve—Manufacture of Malleable Iron and Steel—Mansfield Copper-Slate Mines in Prussian Saxony—Mineral Wealth of South Wales—Mining in Australasia—Improvements in Gas Meters, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, September 20, 1861.

COPPER.		£ s. d.	BRASS.		Per lb.
Best selected	... p. ton	101 0 0	Sheets	... in kegs (rolled)	8 3/4 d. - 9 1/4 d.
Tough cake	...	98 0 0	Wire	...	9 1/4 d. - 10 1/4 d.
Tile	...	98 0 0	Tubes	...	10 1/4 d. - 10 3/4 d.
Burra Burra	...	100 0 0	FOREIGN STEEL.		Per Ton.
Copiapó	...	98 0 0	Swedish, in kegs (rolled)	...	14 10 - 15 0 0
Copper wire	... p. lb.	0 1 1/2	" (hammered)	...	15 10 - 16 0 0
ditto tubes	...	0 1 1/2	ditto, in fagots	...	18 0 - 23 0 0
Rheating & bolts	...	0 1 1/2	English, Spring	...	18 0 - 23 0 0
Bottoms	...	0 1 0	Bessemer's, Engineers Tool	...	44 0 0 -
Old (Exchange)	...	0 0 9 1/2	Spindle	...	30 0 0 -
IRON.		Per Ton.	QUICKSILVER		7 0 0 p. bottle
Bara, Welsh, in London	...	6 5 0	SPELTER.		Per Ton.
ditto, arrive	...	6 0 0	Foreign	...	18 7 6 -
Nail rods	...	7 0 0	To arrive	...	18 10 - 18 12 6
" Stafford, in London	...	7 0 0	ZINC.		
Bars, ditto	...	7 10 0 - 8 0 0	In sheets	...	24 0 0 -
Hoops, ditto	...	8 10 0	TIN.		
Sheets, single	...	9 0 0 - 9 10 0	English, blocks	...	120 0 0 -
Pig, No. 1, in Wales	...	3 0 0 - 4 0 0	ditto, Bars (in barrels)	...	121 0 0 -
Refined metal, ditto	...	4 0 0 - 5 0 0	Ditto, Refined	...	122 0 0 -
Bars, common, ditto	...	5 0 0 - 6 0 0	Banco	...	118 0 0 -
ditto, merchant, in Tees	...	6 10 0	Straits	...	117 0 0 -
ditto, railway, in Wales	...	5 0 0 - 5 2 6	TIN-PLATES.		
ditto, Swed., in London	...	10 5 0 - 11 0 0	IC Charcoal, 1st qua. p. bx.	...	1 8 0 - 1 9 0
To arrive	...	10 10 0	IX Ditto 1st quality	...	1 14 0 - 1 15 0
Pig, No. 1, in Clyde	...	2 8 0 - 2 10 0	IX Ditto 2d quality	...	1 4 6 - 1 6 6
ditto, f.o.b. in Tees	...	- - -	IX Ditto 3d quality	...	1 11 0 - 1 13 0
ditto, f.o.b. in Tees	...	- - -	IX Coke	...	1 2 0 -
Staffordshire Forge Pig	...	3 10 0 - 3 12 6	Canada plates	... p. ton	12 10 0 - 13 0 0
Welsh Forge Pig	...	- - -	In London; 20s. less at the works.	...	- - -
LEAD.			Yell. Metal Sheathing	... p. lb.	8 1/4 d. - 9 1/4 d.
English Pig	...	19 5 0 - 21 10 0	Indian Charcoal Pigs	...	6 12 6 - 6 15 0
ditto sheet	...	20 5 0 - 20 10 0	In London	...	- - -
Ditto red lead	...	22 0 0 - 23 0 0	* At the works, 1s. to 1s. 6d. per box less.		
Ditto white	...	22 10 0 - 23 0 0			
Ditto patent shot	...	22 10 0 - 23 0 0			
Spanish	...	18 10 0 - 18 15 0			

REMARKS.—During the past week the Metal Market has exhibited rather less activity, though a good feeling is manifested, and prices for the most part remain firm. Foreign orders still come over very tardily, but the accounts from many of the Indian and continental markets, as well as China, are of a far more satisfactory character than for some time past. The decrease of the Bank rate of discount will doubtless, to a certain extent, exercise a salutary influence on our market; the reduction, however, was pretty generally anticipated, so that any beneficial results therefrom have probably been rather forestalled.

COPPER.—Since our last week's report English descriptions have not materially altered their position. Smelters are very firm in price, and well supplied with orders, especially for cake and ingot. The orders for unmanufactured are mostly for home consumption. The expectation of a further rise shortly taking place in fixed rates seems very prevalent; very few parcels, therefore, are offering in the market. There has been a good business transacted in foreign during the week, but holders now are for the most part disinclined to realise at existing rates. Burra Burra, 100l.; Kapunda, 99l. to 100l.; Chili in Liverpool, 90l.; Copiapó, 96l.; Alten, 99l. Yellow metal has been rather more in demand of late for shipment to India, but sellers are unable to obtain full prices, buyers invariably requiring concessions to the extent of at least 1/4 p. lb. off fixed prices.

IRON.—Though reports come from some of the manufacturing districts of a rather less gloomy character of late, there are at present no signs of returning animation in our market. Rails are not in any better demand, and prices certainly not looking upwards. Merchant bars continue in ordinary request, at 5l. 2s. 6d. to 5l. 5s. at the works; 6l. f.o.b. in London. Staffordshire makers report rather better enquiry, but orders are still very eagerly sought after, and only first-class brands saleable. Swedish bars somewhat inactive. Inferior assortments have been offering ex-ship at 10l. 5s., and have not succeeded in finding purchasers; fine specifications have realised 10l. 7s. 6d. Scotch pigs have slightly receded all the week, and but a small business has been doing; mixed numbers are now quoted 50s. 9d. - 6d. per ton lower than last week.

LEAD.—In English pig an improved feeling exists, a rather better demand having sprung up; ordinary soft quality has improved to 19l. 5s.; best bands about 20l. 10s.; sheets and shot dull of sale at quotations; Spanish pig, 18l. 10s. to 18l. 15s.

SPELTER.—This metal seems to have almost entirely lost its attractions. The market is now very quiet; 18l. 7s. 6d. is the price quoted, but buyers do not seem particularly anxious to operate. Transactions are reported during the week at 18l.

ZINC firm at 24l., and in fair request.

TIN.—The market remains steady. Business done in Straits at 117l. for cash. Banca, 118l.

TIN-PLATES are more enquired for, and the price has advanced 6d. per box; manufacturers' quotation for IC coke, 22s.

STEEL.—Swedish keg in better demand, and quoted 14l. 10s. to 15l. hammered quality.

GLASGOW, SEPT. 19.—The market has been active to-day, and over 20,000 tons have changed hands, at 50s. 7 1/2 d. cash, closing buyers; sellers, 50s. 9d. No. 1. g.m.b., 50s. 6d.; No. 3, 49s. 6d.

ADELAIDE, JULY 25.—Mining matters are very quiet. There are a great number of the new companies now at steady work at Wallaroo and other places, and some of them are looking very well indeed, but there is very little speculation in the share market. Metals remain much as they were, except galvanised iron, which is hardly in as good enquiry. The South Australian Mining Association continue to sell their copper at 92l. 10s. per ton. Mr. Bagot recently presented a petition from Messrs. Neales, Colley, and Singleton on behalf of the Great Northern Mining Company, praying that the mineral regulations of Oct. 18, 1860, be made retrospective, so as to extend their benefits to that company. The petition contained a correspondence, showing that the Government promised on Nov. 18 last to bring the matter before Parliament, with a view to having the regulations made retrospective. A similar petition has been presented in the Upper House.

As money becomes cheaper and more abundant in the market, as the fears for the harvest are allayed, and holiday makers are returning to town and to active pursuits, there is a demand for good investments, and we scarcely take up a newspaper without finding some special recommendation—from a pet railway debenture, or an Indian loan, to a Spanish Bond, or something about as valuable. It would not become us, therefore, to remain silent on behalf of British mines, though with the general public there do not find favour. The man who would feel alarm at the very idea of investing in a well-managed dividend mine, would rush at visionary foreign scheme well got up, would invest freely in a grand trunk railway, a great ship, or anything else resulting in a ruinous loss, but our great mineral industry, returning THIRTY MILLIONS STERLING a-year, and having throughout its various ramifications so direct and important an influence upon the commerce of the world, must be avoided, simply because too many people have taken their ideas of mining from a few bubble companies. We grant that to enter blindly and indiscriminately into mining speculations, upon the mere faith of projectors, and upon statements, the fallacy of which is easily found out is folly in the extreme; but we maintain that there is no better investment in any security paying more than 5 per cent. than British mines, when common care and prudence are observed in the selection. A short time ago a calculation was published which showed this in a remarkable manner. The value of a share in each dividend mine of 1851-2 was taken from the Share List of the *Mining Journal*, when it was found at that date one share in each of the forty-four dividend mines cost in the aggregate 5451l. 5s.

In January, of the present year, ten of these mines had become valueless, yet the value of the whole investment in 1861 was 6804l. 5s., while in the interim of nine years the dividends paid on the original investment of 5451l. 5s. were 6384l. 0s. 6d., showing an average interest of 13 per cent. per annum, and a profit on the investment of 1352l. This calculation was made taking the good mines with the bad, and it was shown that, while in seeking an investment, many of the mines from their known failing position, would not have been chosen at all, others could, during the

nine years, have been sold at an enormous profit, and the result of the investment might have been made to show at least five times more favourably than it did. Among some of the mines in the list, for instance—a 256th share in West Caradon cost 117l. in 1852, and was worth (as 4-1024th) 316l. in Jan., 1861, after paying 205l. in dividends. A share in St. Ives Consols (1-94th) cost 125l. in 1852, and was worth (as 10-940th) 500l. in Jan., 1861, after paying 314l. in dividends. A share (1-112th) in Wheal Margaret cost 140l. in 1852, paid 325l. in dividends, and was worth 432l. (as 8-896th) in Jan., 1861. A share in Devon Great Consols cost 280l. (1l. paid-up) in 1852, and worth in Jan., 1861, 425l., after paying, in the nine years, 510l. 10s. in dividends. We could go on augmenting this list, and though, as we said before, 10 of the 42 mines had become valueless—the result of the whole investment shows the safety of the plan we have always advocated—that of a *division of risk* in a good selection of not less than half a dozen mines. The same plan refers to progressive mines, of which a good selection can always be made.


In the MINING SHARE MARKET, since our last, there has been a good business done, and while some shares are flatter, others have had a considerable rise. It would seem that for a few weeks at a time a particular lot of mines are in favour, and, being largely dealt in to the exclusion of others, the prices go up until they are succeeded by another lot, to undergo the same process of advance and temporary decline. This week the greatest attention has been paid to East Carn Brea, East Caradon, Long Rake, Herodsfoot, Hingston Down, West Caradon, Wheal Trelawny, Carn Camborne, Wheal Grylls, Stray Park, Wheal Grenville, North Basset, Mary Ann, North Downs, Wheal Seton, New Treleigh, Kitty (Lelant), South Frances, &c. East Carn Brea shares have advanced to 9, 9 1/2, owing to the generally improved prospects of the mine. East Caradon shares firm, and in good request, and leave off 26 1/2 to 27. West Caradon shares have advanced from 39 to 45, 46. North Downs shares have not been quite so firm, and leave off 5 1/2 to 6. South Frances shares have been more enquired for, owing to an improvement, and leave off 115 to 120. Wheal Trelawny shares advanced to 14 1/2, 14 3/4. North Basset, 6 1/2 to 6 3/4, and in demand. Bryn Gwio shares have advanced from 23 to 25, 27; the lode in the shaft is reported as worth 6 tons of lead per fm. Long Rake shares have been in considerable demand, and a large business done, leaving off 12 1/2 to 13 1/2; the 48 east is reported worth 1 ton per fm.; other parts of the mine are without change, and it is expected 20 tons of lead will be sold at the next ticketing. Brynford Hall, 18 to 20; Calvadnack, 8 1/2 to 8 3/4; Camborne Veian, 2 1/2 to 3; Carn Brea, 75 to 80; Cook's Kitchen, 30 to 31, and not so firm; Cradock Moor, 20 to 25. Copper Hill, 115 to 120; the lode in the winze is said to be not looking so well. New Treleigh, 32s. 6d. to 37s. 6d.; the 80, east of engine-shaft, will produce 3 tons of ore per fm.; the second winze, commenced east of Carr's engine-shaft, below the 70, is worth 5 tons of copper ore per fm. Dale, 16s. to 18s.; Drake Walls, 18s. to 20s. South Carn Brea, 3 1/2 to 3 3/4, and in request. East Basset, 77 1/2 to 80; Ding Dong, 16 1/2 to 17 1/2; we have received several communications respecting our quotation of last week, which was furnished to us from the Mining Exchange, and we supposed at the time it was correct. West Fowey, 4 to 4 1/2; at the meeting the accounts showed a balance in hand of 5724. 9s. 11d. For the next four months the agents hope to sell about 15 tons of tin per month. East Russell, 3 1/2 to 3 3/4; Grambler and St. Aubyn, 11 to 13; Great South Tolgus, 4 to 4 1/2; Great Wheal Martha, 31s. to 33s. East Grenville, 37s. 6d. to 39s.; the lode continues worth 27l. per fathom in the shaft for copper and tin. Rosewall Hill and Ransom United, 23s. 6d. to 25s. 6d.; the lode in the end, west of Troan, is improving, and now worth 35l. to 40l. per fm. At Old Tolgus the lode in the 52 west maintains its size and appearance. Altogether, from an inspection of the mine by Capt. Pascoe, the prospects of it have generally improved. Great Wheal Fortune shares not quite so firm, at 14 1/2 to 15 1/2. Wheal Unity, 17s. 6d. to 20s.; the delay in cutting into the lode in the 75 has made shares flatter, and less business doing. It is always difficult to tell at what exact distance a lode heaved by a cross-course will be met with; but the agent thinks that it is near at hand. The men have driven 2 1/2 feet through the spar lately intersected, and seem to be nearly through it. Great Crinnis, 1 1/2 to 1 3/4; it is expected the lode will be cut into at the 120 next week, and the indications are very favourable. Carn Camborne have been in good demand all the week at 25s. to 30s., and leave off 24s. to 26s. The ore now sampled is of rich quality; the principal parcel, we understand, producing 15 per cent. of copper. Herodsfoot, 34 to 36; Hingston Down, 3 1/2 to 3 3/4; Lady Bertha, 16s. to 17s.; Marke Valley, 10 to 10 1/2; New Seton, 4d. to 4s. 8d.; North Minera, 24s. to 26s.; North Treskerby, 23 1/2 to 24 1/2; Providence Mines, 41 to 43; Rosewarne United, 20 to 22; Sortridge Consols, 8s. 6d. to 9s. 6d.; South Caradon, 29s. to 30s.; South Caradon Wheal Hooper, 18s. to 20s.; South Tolgus, 25 to 30; St. Ives Consols, 32 1/2 to 35; Stray Park, 31 to 32; Tincroft, 6 to 6 1/2; Tolcarne, 20 to 24; Vale of Towy, 4s. to 5s.; Wendron Consols, 14 to 16; West Polmar have improved to 13s., 15s., and more business done. West Frances, 11 to 13. West Seton have not been so firm, and leave off 32s. to 35s. Wheal Arthur, 10s. to 12s.; Wheal Basset, 85 to 87 1/2; Wheal Hope, 1 to 1 1/2; the lode continues to improve as it nears the junction, yielding from 3 to 4 cwt. of rich silver-lead per fathom. Wheal Grenville shares have been more in demand, and leave off from 35s. to 40s. Wheal Grylls shares have advanced to 8 1/2, 9; call of 1l. per share paid, and they have been in considerable demand. Wheal Kitty shares have advanced to 6 1/2, 7, and in demand. Wheal Ludcott, 3 1/2, 3 3/4; Great Margaret, 43, 45; Wheal Mary Ann, 12, 13; Wheal Seton, 77 1/2, 82 1/2; Wheal Retallack, 23s., 25s., and quiet. East Providence, 42s. 6d., 47s. 6d.; the 65 east, on south lode, in Providence, is said to be approaching East Providence, and near the boundary a shaft is being sunk, and now down 16 fms. under adit, and opening out good tin ground. Bedford United, 4 1/2, 4 3/4; at the meeting on the 19th a dividend of 1s. 6d. per share was declared, and a balance of assets for next account of 1417l. 17s. 1d. The state of the mine, it is reported, will admit of the present returns being kept up, without trenching upon the reserves.

On the Stock Exchange transactions in Mining Shares have been more numerous than for a long time past, and the tendency of prices has been decidedly upwards. The following prices were officially recorded in British Mining Shares:—North Downs, 6 1/2, 6 5/8; Providence, 43, 42, 41 1/2; West Caradon, 40 1/2, 42, 41 1/2, 43, 44 1/2, 45 1/2; East Caradon, 26 1/2, 26 1/2; East Basset, 82; Hingston Down, 2 1/2; Margaret, 43 1/2, 44; North Wheal Basset, 6, 6 1/2; Stray Park, 31, 30 1/2; Tamar, 1 1/2; Wheal Mary Ann, 13 1/2. In Foreign Mining Shares the prices were—St. John del Rey, 38 1/2, 39 1/2, 40; United Mexican, 5 1/2, 5 1/2; Fortuna, 1 1/2; Cobre, 35 1/2, 36. In Colonial Mining Shares the prices were—Great Northern Copper of South Australia, 1 1/2, 1 1/2; Port Phillip, 1; Kapunda, 2 1/2; Bon Accord, 1.

The closing quotations for shares in new undertakings were:—Ocean Marine Insurance, 4 1/2, 4 1/2 prem.; Thames and Mersey Marine, 1 1/2, 1 1/2 prem.; being better; Universal Marine Insurance, 3 1/2, 3 1/2 dis., being again higher. London and Provincial Marine, 1 1/2, 1 1/2 dis. to par; Oriental and General Marine, 3 1/2, 3 1/2 prem.; Mercantile Fire, 3 1/2, 3 1/2 prem.; Commercial Union Fire, 1 1/2, 1 1/2 dis. to par; Bahia Steam, 1 1/2, 1 1/2 prem.

St. John del Rey Mining Shares were firm at the late advance. Fortuna shares were flat. Colonial Mining shares remain steady. East del Rey shares were quoted 3, 1 prem.; Labuan Coal, 1 1/2, 2 1/2 prem.; and Zamora Tin, 1 1/2, 1 1/2 prem. South Devon Iron shares are now on the Stock Exchange List, the closing quotations being 1 1/2, 1 1/2.

At Truro Ticketing, on Thursday, 6196 tons of ore were sold, realising 32,853l. 17s. The particulars of the sale were—Average standard, 132l. 11s.; average produce, 6 1/2; average price per ton, 5l. 6s.; quantity of fine copper, 376 tons



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Notices to Correspondents.

* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

SLATE QUARRIES.—The rapidly increasing interest in slate quarrying on the part of the public, causes the want of a reliable list of the companies in operation to be very generally felt—to meet this want we intend to compile such a list, and make it a separate feature in our last page. We shall, therefore, be much obliged if secretaries and managers will furnish us with the details necessary to make the return correct, and keep us advised of any alterations.

NORTH NANT-Y-MWYN.—Will the secretary of the company inform me who is the manager, and who is the captain of this mine? If there is any captain why are the reports not furnished to the Journal? A call of 1s. per share has been made, but I have received no notice of the meeting. May I ask for a statement of the finances of the company has not been forwarded to the shareholders, showing its true position? What has become of the 12 tons of lead said to be ready for market; is there any such quantity, if so, why has it not been sold, and accounted for?—A SHAREHOLDER.

GREAT WHEAL MARTHA.—Mr. EVANS, in his reply to my letter, says that the directors always meet on the exact days fixed for the board meetings; perhaps he will be a little more explicit, and tell us whether the meetings are once in three months, or how often? My transfer was at the office upwards of a month after Mr. Evans promised to forward the certificate. It appears that my complaint is not a solitary one. In another Journal I read in the Notices to Correspondents the following:—"GREAT WHEAL MARTHA.—Your complaint is a general one. Scarcely a day passes without our receiving a letter from shareholders not being able to get their certificates. The secretary promises an improvement for the future." Now, Sir, whether all these complaints come from parties who have recently become shareholders I know not, neither does it matter. Surely new shareholders have as much right to have their letters acknowledged, and their certificates returned, as old ones. I may just observe that Mr. Evans stated his inability to find directors when he wanted them as the cause of my certificate not being forwarded; whereas he now says that they always meet on the board days.—A SHAREHOLDER.

GREAT WHEAL MARTHA.—In your Notabilia of last week, referring to this mine, a correspondent states "that it has been proposed to increase the capital from 12,500 to 20,000 shares." By request of the board of directors, I beg to inform you that no such proposition has ever been either entertained or discussed at any of our meetings. I hope you will give publicity to this statement.—JAMES WRIGHT, Chairman of the Board of Directors: 42, Bridge-street, Sept. 19.

GREAT WHEAL MARTHA.—If "A Shareholder" has reason to complain of any particular director, he should address a letter to the board. An authoritative answer to his statement as to the intended increase of capital appears in another Notice.

GREAT WHEAL MARTHA.—In a paragraph which appeared in last week's Journal it was stated that Capt. Richards had inspected this property, and had made a favourable report. Now, as this property has been recently inspected by Capt. J. Richards, of the Devon Great Consols, as well as by Capt. Joseph Richards, of Pelyn Wood Mine, it would be more satisfactory to those interested to know which of these agents made this favourable report; the more especially as it is said that Capt. James Richards, after having inspected the mine for a large shareholder, had made anything but a favourable report.—AN INQUIRER.

SMITH'S WOOD, AND SIGFORD CONSOLS.—The letter of "Fair Play" can only appear with the writer's name attached.

AURIFEROUS STEEL.—Erratum.—In my letter of Sept. 10, for "He proposes an alloy containing only 67 one-hundredths of an ounce in each ounce of iron," please read "Only 67 one-hundred-millionths."—J. WOOD: Tipton, Sept. 16.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, SEPTEMBER 21, 1861.

The official advices already received from the British colonies and dependencies indicate that the mineral and geological departments of the INTERNATIONAL EXHIBITION of 1862 will be as well represented as could be desired; indeed, most of the suggestions and recommendations we have made from time to time during the last six months are likely to be carried out. The public, and those especially interested in mineral products, will have such an opportunity of investigating the mineral riches of our colonies as has never before been afforded, and the result to the engineer and manufacturer cannot but be beneficial. So detailed and interesting are the accounts, that we can only take one section in our present Journal—the Australian.

In New South Wales the committee appointed to attend to mineral products consists of the Rev. WM. B. CLARKE, M.A., Captain WARD, R.E., Deputy Master of the Mint, and the Hon. R. J. WATSON, Member of the Legislative Council. The articles expected to be sent are gold, silver, platinum, tin, iron, lead, antimony, ornamental stones and marbles, building stones, limestone, gypsum, heavy spar, plumbago, coal, sulphur, rock salt, slates, asbestos, sand for glass, clay for pottery, native salt, including alum, &c. The local commissioners state that they are anxious that the collection to be transmitted should be such as to afford a full and adequate representation of the products and resources of the colony, and that the specimens selected, without being too bulky, should be of the choicest character, and as varied as possible. That they should be also more particularly illustrative of objects of present wealth and prosperity, or of indigenous products which there is a reasonable presumption may hereafter prove of economic value or of commercial importance. Besides 3000*l.* voted by the Legislature of New South Wales, to be expended in promoting the exhibition of colonial products, the Government have advanced a further sum of 5000*l.* for the purchase of gold specimens; the latter sum to be repaid after the sale of the gold at the close of the Exhibition. It is proposed by the colony to recognise meritorious contributors, and those who may actively co-operate with the local commissioners, by the presentation as prizes of silver and bronze medals.

The Mineral Products Committee in Sydney have solicited contributions from several quarters, among others from the following companies and individuals—Summer Hill Mine, Ophir and Canobolas Mine, Caranga Mine, Coal and Copper Company's Mine, requesting them to furnish specimens of all the different ores found in those mines, and of the rocks most prevalent, with, if possible, plans and sections showing the working of each mine. The individuals applied to have been—Mr. A. HODGSON, general superintendent of the Australian Agricultural Company's coal mines; Mr. MOORE, Commissioner of Crown Lands at Tamworth, asking him to forward marble and limestone, and others.

The committee have also communicated with the Commissioners of the Gold Fields, requesting them to furnish a sample of not less than 6 cwt. in weight from each alluvial gold field in the district under their charge; there are about fifty gold fields in the colony. This is to be obtained by some trustworthy person on the spot from diggings actually at work, so as to leave no question that it is in its entirety the produce of that particular field. With each sample a small quantity (about a quart) of the "washing stuff," stating its average yield and thickness; a specimen of

each kind of deposit overlying the washing stuff, with a statement of the thickness of each, and of the order in which it occurs, and a specimen of the bed rock. Specimens of the auriferous quartz from reefs which are being worked, or which are considered capable of being worked with profit; accompanied in the former case by a statement of the machinery employed, the work performed, and the average yield per ton.

They have also addressed the owners of coal mines, requesting them to furnish samples of not less than half a ton of coal from each coal seam under their direction, either being worked, or capable of being worked with profit, informing them, at the same time, that these will be sent to England, first for display, and afterwards for the experimental determination of their commercial value. The whole of these samples are to be supplied under the supervision of the Government Examiner of Coal Fields. Implements and parts of machinery manufactured from colonial iron and steel are to be shown.

The Executive Council of New South Wales have appointed Mr. E. HAMILTON, the Commissioner for the Colony in London, and agent for the purposes of the Exhibition. This gentleman had already established a claim upon the consideration of the Colonial Government, by the many valuable services which he has rendered to the colony, and especially in the matter of ocean postal arrangements. For these Mr. HAMILTON has already received the thanks of the Government and both branches of the Legislature, and his name was, in the opinion of the Council, sufficiently before the public, both in Sydney and in England, to justify them in regarding him in all respects as the colonist best fitted to fill the office.

In Victoria, the committee appointed to attend to the fourth class—"Mineral Products, and the Manufactures and Processes connected therewith"—consists of Prof. McCOR, F.G.S., the Hon. J. B. HUMPHREY, Member of the Legislative Assembly and Commissioner of Mines, and Mr. A. R. C. SELWYN, Government Geologist. It is proposed to send from Melbourne illustrations of mining and quarrying operations; examples of the metallic ores, with the matrices in which they are embedded, in samples not exceeding 1 cwt., accompanied, if possible, by a statement of the size of the vein or deposit, exact locality, depth from the surface, cost of extraction (when known), chemical constituents, market value, and any other information. Non-metallic mineral products, including geological specimens, building materials and lime, &c. The building stones are to be in blocks, capable of affording a dressed cube of 6 inches, with information relative to locality and cost of production. Sand, lime, gypsum, or plaster of Paris, cements, &c., in parcels not exceeding 1/2 cwt. Slates and flags, in sample sizes commonly used for flooring, roofing, or other purposes, with prices, exact locality, and any other information relating thereto. Clays of all kinds, in quantities not exceeding 1/2 cwt., with specimens of bricks, tiles, and pottery manufactured therefrom, with exact locality, and information relative to cost of production, &c. Coals and lignites, in bags or blocks not exceeding 1 cwt., with statement of the depth and thickness of seam or deposit, exact locality, and any information relative to cost of extraction, and probable market value, together with chemical constitution (when known). The Lords of the Admiralty have given instructions that Mr. ATHERTON, of Woolwich Dockyard, shall test for the colonies any samples of coal that may be sent, to ascertain their economic value as steam fuel. In order to obtain the best possible collection of specimens of gold, and, at the same time, to economise the resources placed at their disposal, the local commissioners have addressed themselves to the different banks, requesting their co-operation. It is anticipated that they will be allowed to make selections from time to time from the large quantity of the precious metal purchased by the banks, of specimens possessing peculiar attractions, by reason of size, richness, or on account of the ore being associated in an unusual manner with other minerals. If so permitted, these will be sent to England for exhibition, and sold when the object in view is attained, a reasonable compensation being paid for the use of them. The Colonial Government has also been applied to to sanction the remittance of funds, for emigration or other public purposes, being made in crude gold, which, after it has been exhibited, would be disposed of in London on the public account.

No geological specimens, unless possessing especial interest or economic value, intended to be sent home, are to exceed 5 lbs. in weight. Geological maps, plans, and sections illustrating mining and other field engineering operations connected with the gold fields are asked for by the committee, as well as geological, mineral and mining models of strata and machinery, proportioned to a scale. The same gentlemen act as a committee for the 5th class—"machinery, instruments, tools, and implements."

A raised map of the colony, on a considerable scale, is about to be commenced; it will show the natural features of Victoria—its coast line, mountains, water-courses, plains, forests, roads, railways, &c. The alienated and Crown lands, the gold fields, &c., will be shown in distinct colours, and thus the visitor to the Exhibition will have before him a miniature Australia—as it is. He will see at a glance the enormous amount of land open for agricultural settlement, and the numerous gold fields scattered all over the colony; and, possibly, some erroneous ideas on the subject of the water supply will be removed by the long lines of rivers and creeks which the map will display. This feature of the Exhibition, therefore, may of itself be of great service to the cause of immigration.

In South Australia active measures have been taken by the Governor, who himself convened and presided at public meetings where the general arrangements were agreed upon, and the mineral products especially, in which this colony is so rich, will be well represented. In each of the colonies a local exhibition is to be held of the various articles before they are dispatched to London. Tasmania will have an interesting collection of mineral and metallurgical products, &c., including bituminous and anthracite coal, slate, limestone, gems, ochres, &c. The local commissioners have resolved that the sum of 300*l.* should be expended in the purchase of Tasmanian gold for exhibition, the same to be afterwards sold.

The tract of country where gold has hitherto been found in Tasmania is limited in extent, and restricted probably (notwithstanding numerous reports to the contrary) to the north-east quarter of the island. In Australia, California, and other auriferous countries gold is worked *in situ* more or less; but in Tasmania it has hitherto only been found of a drift description, yet apparently removed in but a trifling degree from its original position in the quartz veins—its undoubted matrix. Although there are other localities in Tasmania not unlikely to yield gold, it does not seem probable that it will now be obtained in such quantity, or for such a length of time, as materially to affect the commercial transactions of the colony, or to exert that deteriorating influence on the character and habits of its industrial population which has hitherto been so painfully obvious in rich mining countries. Fortunately for Tasmania, her future position and importance as a country, and the status of her inhabitants as a community, are far more likely to be determined by the yet undeveloped influences of the hidden treasures of coal and iron than by the thriftless and gambling habits and pursuits of nomadic gold hunters.

Paraffine oil from shale, to the practicability of manufacturing which in large quantities attention has recently been directed in the island, will be sent. Amongst its minerals, Tasmania is said to possess a compact brown hematite iron ore of exceeding richness, yielding a metal of such fine quality as bids fair to be valuable in the manufacture of boiler-plates and other articles where great strength and fineness of fibre are required.

Mr. GOULD, the Government Geologist, having been instructed to make a thorough exploration of the coal fields on the east coast, has published an official report, from which we learn that for immediate practical purposes he considers that the coal measures of that district may be regarded as constituting two distinct fields; one is the Mount Nicholas coal field, comprehending the separate portions developed on either side of the Break-of-Day Valley, and the other the Douglas River coal field, comprising the carboniferous formations between Long Point and Bichenow. Each of these fields presents a principal seam capable of being worked with advantage and profit. The Mount Nicholas seam Mr. GOULD describes as probably unequalled by any other in the colony—possessing the combination of advantages of thickness, extent, ascertained quality, and reasonable cost of working. Mr. GOULD estimates that every cubic yard of this coal would yield a ton in weight; that, "at the most moderate computation," we might anticipate being able to extract the whole of the middle bed, yielding a thickness over 6 ft., ample allowance being made for losses of every description. Thus allowing for loss of half of the seam, every hundred yards of it would yield 20,000 tons of coal. "But (Mr. GOULD adds) it is likely that a considerably larger proportion of the whole amount of the coal contained might be profitably extracted—in which case the average of the yield would be proportionably increased." The second great seam which Mr. GOULD has discovered lies on the Douglas River, considerably to the west and north of the mines worked by the coal company, which were near the Denison Rivulet; it is 8 ft. in thickness. Mr. GOULD says of this coal that it is a bituminous, free-burning, non-caking coal, evolving great heat, and a considerable amount of gas; burning with a strong flame; leaving

a rather considerable amount of residual white ash; well adapted for all domestic purposes and for the manufacture of gas, and appearing to correspond closely with the 12-feet seam under Mount Nicholas. Mr. GOULD assumes, on a moderate computation, that 6 ft. could be extracted, yielding 20,000 tons in every 100 yards. He says "It probably underlies the whole of the country from Doctor's Creek to nearly as far as the Denison Rivulet." With the fact of the value of the coal for household use, and for application to the several branches of manufacture established, Mr. GOULD says, "The experiments made upon it from time to time have been upon too limited a scale to permit of the determination of its value as a steam fuel." Of course, the existence of a large and steady demand for this coal would be necessary to repay the cost of working the mines, and to return the capital expended in the construction of a tramway, in harbour improvements, &c. If it be demonstrated that the mineral is available as a steam fuel, the question of the success of a great mining enterprise is at once solved. On this point it is necessary to seek conclusive evidence. And to establish the fact beyond all doubt, Mr. GOULD recommends the extraction of 150 or 200 tons of coal—sufficient to allow of an adequate trial of its qualities, to be made in some of the large ocean steamers, and a series of experiments to be made upon it by engineers and manufacturers in this colony and Victoria. The preliminary outlay of a few hundred pounds would suffice both for this object, and for such a survey of the country as would determine the question of the most available point for shipment.

From New Zealand the accounts are not yet very important; indeed, the native war, and the attention of the officials to the ways and means relating thereto, has drawn off a good deal of the attention; still some of the provinces will send good collections, and there will be many home exhibitors. The magnetic iron sand and the cutlery from it will occupy a prominent place. Various new gold fields are turning up. A paying gold field has lately been discovered in the province of Otago, on the Lindis River, a south tributary of the Chutta, rising in the Dunstan range of mountains. The Lindis is easy of access from Dunedin and Samara, being about 70 miles in a direct line from both these ports. It is reported that prospecting parties have been over a considerable space of country, and that gold has been discovered over an area of 40 miles square, but this statement requires confirmation. In the province of Nelson gold digging is still steadily pursued. The labours of those engaged in the neighbourhood of Wangapeka are well rewarded, and the new field promises to prove richer than any that has been yet worked there. We hope to see other mineral products sent from the New Zealand islands, so as to swell and add to the interest of this department of the Australian collection.

We this day publish the conclusion of the first series of the very interesting and valuable papers upon PRACTICAL COLLIERY OPERATIONS, by Mr. JOS. GOODWIN, of the Hyde and Haughton Collieries, Manchester, and may fairly congratulate our readers upon having had an immense amount of practical information placed before them in a business-like and systematic manner. The principal departments into which the practical management of collieries naturally divides itself have been in turn treated of, and many valuable suggestions have been made for lessening the casualties, and removing the obstacles which have hitherto appeared almost inseparably connected with the getting of coal. The reader has been gradually led from the point at which the "winning" of the coal is commenced by the sinking of the shaft, through the various intricacies of the subject, until the pit is in full operation, and a regular and continued supply of coal is being raised, concluding only when he has had pointed out to him the duties and responsibilities of colliery managers upon whom depend the safety and success of the mine.

The sinking of shafts having been disposed of, Mr. GOODWIN carefully discusses the relative merits of the "long wall" and the "pillar and bord" systems, showing by the number of tons of coals raised for each death that the "pillar and bord" system is entitled to the preference. The system of working being decided upon, the pumping of water and the winding of coal next receive attention, followed by the *modus operandi* of getting coal, with remarks upon the principal systems employed; the ventilation of mines; remarks on faults, dislocations of strata, &c., in connection with the working of collieries; remarks upon the subsidence of the surface consequent upon the working of collieries; remarks upon the surveying of mines; remarks upon the accidents and loss of life in connection with the working of collieries; and an explanation of the duties and responsibilities of colliery managers. A more concise and useful series of papers could scarcely have been written; we may, therefore, commend them to the careful perusal of all engaged, whether directly or indirectly, in the production of that wonderful mineral which is the principal basis of England's greatness.

In the Supplement accompanying this day's Journal we give a very copious report of the Proceedings of the South Wales Institute of Engineers, at their annual meeting held at Swansea. In his opening address the President (Mr. LIONEL BROUGH) referred to the fact that although the Institution had been in existence only four years they now numbered 202 members. After a few observations upon the abilities of Messrs. SAMUEL TRURAN, of Dowlais; CALER DAVIES, of Nant-y-Glo; and DICKENS, who have died during the year, he remarked that the proceedings of the present meeting would complete the second volume of their "Transactions," which would be issued in about two months. Mr. HANDEL COSSHAM read an interesting paper on "The Working of Thin Seams of Coal," and the papers of Mr. SIMS on the "Cornish Engine," and by Mr. JAMES, on "Underground Machinery" were discussed, after which Mr. R. SCHMIDT read a paper on Prof. Zenner's Diagram for showing the motion of the slide-valve.

The most remarkable feature in Mr. COSSHAM's paper was his statement that "he does not hesitate to say that thousands of people have been transported for less crimes than are committed against God and humanity by the reckless, careless destruction and wasteful way in which that wondrous (South Staffordshire) coal field is now working, involving, as it does, the destruction of over 300 lives annually, and over 60 per cent. of coal." Mr. COSSHAM also gives an estimate of the cost of working thin seams, stating that the total cost of raising coal from a seam 2 ft. to 2 ft. 6 in. thick, should not exceed 5s. 9d. per ton; from a seam 13 in. to 2 ft., 5s. 10d. or 5s. 11d.; and from seams 12 in. to 18 in., 6s. 3d. or 6s. 4d. From the remarks, however, of Messrs. ALEX. BASSETT, LIONEL BROUGH, and THOMAS EVANS, it would seem that the advantages which have been obtained by Mr. COSSHAM are the result of accidental circumstances—such, for instance, as the opening of the pits on the most approved and recent method; and that the economy he effects is the result of natural causes. Mr. BROUGH explained that accidents from falls of roof were almost impossible in the thin seams of the Bristol collieries. With respect to the accidents in South Staffordshire, Mr. BROUGH referred to the South End Colliery, where, at his suggestion, the system of working the seam at twice had been introduced, since which there had been no accident to life or limb. Mr. COSSHAM pointed out the advantages of the Bristol Mining School, and concluded some appropriate remarks by soliciting substantial aid in the shape of donations and subscriptions.

No duty of the public journalist is more arduous than to foster and correct the advance or excess of the principles he advocates. It is natural that success shall beget imitation and rivalry, and that, in mining particularly, one great prize, or a season of unwonted prosperity, should cause the formation of sundry schemes, whose purport is to, at least, equal the most fortunate speculations of the day. Mining certainly affords a good field for projects of this species; the uncertainty (unavoidably concurrent), as well as the imperfect acquaintance with the nature of the business by adventurers generally, conduce to the ease with which such schemes are but too frequently introduced, and gross frauds perpetrated; the concocters, too, are often so practised in the art as to screen themselves from odium and punishment, when the onus and disgrace are wreaked on the heads of the unfortunate persons who have been made the catspaws for crafty knaves. That such persons abound cannot be denied; and our columns have always been, and always shall be, devoted to the detection and exposure of such disgraceful proceedings. Of late we have had this at all times unpleasant and painful duty but seldom required; we shall not advert to recent cases further than to say we have done our duty in either case, and had hoped it would have proved a warning. We can confidently announce the mining market to be now comparatively free from wild enterprises, and we wish we could say it was equally clear of scheming chicanes, who get hold of good properties, not for the sake of working them legitimately, but solely for the purpose of running the shares up to a premium, then selling out, and wholly abandoning the affair.

Our advice to persons who purpose investing their spare capital is to enquire into the antecedents of the promoters and managers, to see the share lists, mark the number held by each party, and ascertain if the large in-

vesters have the wherewith to warrant their standing for such amounts as their liabilities may probably require; and to see, either personally or by an accredited agent, the real situation and status of the mine. We have often propounded similar sentiments, but as there are continually neophytic adventures, we deem wholesome advice repeated as not being out of place; from those who have benefited we look for a recognition of well-meant services, and to those who have neglected our timely advice we hope the present will be accepted as a reiteration for their benefit. Were these premises adopted we should be less annoyed by enquiries respecting the capabilities of various mines and their agents. We make it a point of absolutism never to give an opinion of our own on any particular mine or speculation; we only give publicity to the details of those who deem their opinions worth publication. We do this gratuitously, and in doing so we trust "we have done the state some service." Our columns are adorned weekly by the names of some of the most practical miners Britain ever produced, our statistics are derived from probably the best authority the world ever saw, and are quoted in every publication bearing on the subjects of mining or metals.

In making these remarks, we only do so in order to caution our numerous correspondents that we never offer our individual opinion; that what we publish is as near the fact of the case as ascertained; that we pay no attention to anonymous letters; that we cordially welcome and invite controversy, and continue it as long as it elicits facts and truths; and that so soon as these points fail, or personalities ensue (*as will sometimes occur in the heat of argument*), we drop the subject forthwith.

The *Moniteur Industriel* of the 8th inst. devotes its leading article to what it chooses to term "Economic Anomalies," which it finds in the commercial position of England, as indicated in the Board of Trade returns for the first seven months of the present year. These returns, as all our readers know, and expected from the relative positions of England itself and one of its greatest customers, show an excess in value of our imports over our exports amounting to nearly 29,000,000 sterling—more than 4,000,000 per month. These returns we have already, as is our custom, analysed and explained, and we only return to the subject now on the special invitation of the *Moniteur Industriel*, which expressly invites those journals it regards as authorities—the *Economist*, the *Mining Journal*, the *Times*, and the *Manchester Guardian*, to say what they think on what it deems "The Inexplicable Reverse Position," in which England, desiring to be an universal seller, finds herself a purchaser, in spite of herself; and to tell if such a state of things should continue how English commerce can pay the difference, and how the equilibrium could be re-established.

If the writer in the *Moniteur Industriel* had read carefully the articles on the subject published by ourselves and our contemporaries, or even the quotation from the *Times* made by himself in another article of his same number—what "the influence of the United States was on English commerce," he would not have found our position at all inexplicable, a very considerable proportion of the falling off of our exports being chargeable to our necessarily diminished trade with both sides in the American conflict; while the failure of our harvest last year, obliging us to buy largely of bread stuffs in foreign markets, might have accounted for a still further sum of the balance against us. Thus our commerce has undoubtedly been, and we fear will yet further be, very seriously affected. But we have great faith in its inherent elasticity. The temporary check received by the untoward situation of affairs in America, if not overcome by a happy solution of the differences there, will be at least modified by the spirit of enterprise which has always found some new market, some new outlet for its energies, when cribbed or blocked out of old channels; and, although this must necessarily be a work of time, we may hope, as we perfectly understand and appreciate our actual position, and the causes which have induced it (although these appear to be inexplicable and unintelligible to our friend, the *Moniteur*), and as we have passed little the worse through many a financial crisis and disastrous season, we shall, under favour of an excellent harvest, and a large balance of bullion, very speedily re-establish the equilibrium "now temporarily disturbed."

TRACTION-ENGINES.

The mighty stride which the steam-engine has made during the last quarter of a century might lead a casual observer to suppose that even this almost omnipotent agent had become exhausted in the various forms and arrangements to which it has been applied. The marine and the mine engine, the railway locomotive, and the innumerable descriptions of stationary and portable engines, have each respectively been the objects on which so much genius, labour, skill, and energy have been lavished, that they are now brought to such a point of finish and perfection that it would seem the world might almost admiringly cry—Eureka! But on looking more closely into and tracing the progress of the manufactures and application thereto of scientific principles in this country, we are struck very forcibly with that untiring, recuperative energy, which, having attained perfection in one branch of manufacture or science, does not rest contented with the triumph it has achieved, but, like a Paladin of old, seeks fresh objects on which it may go on spending its resistless force. Thus ever onward rolls the great wave of Progress!

We have chronicled in the *Journal* the first labour in life of many an important scientific adaptation and undertaking, whose sphere of useful and advantageous application is now unlimited; and we consider that in taking up and acting as pioneers to the important subject of Steam Traction we are bringing before our readers a system which, though perhaps but now in its infancy, is destined to do more in the not very distant future towards extending the facilities of commerce, developing the resources of counties rich in productive properties, now abandoned to waste and ruin, and extending the bounteous advantages of civilisation, than any the world has yet seen. It is unnecessary to enter into all the experiments made by inventors of steam-engines and carriages for travelling on the common roads. Suffice it to mention that before the advent of railways the attention of the great engineers of their day was turned chiefly to the common roads as the ground of operations for their productions. Nothing, however, very great or important was brought out, and the subject came to be treated with cold, sceptical neglect. At length Stephenson appeared on the scene, and tore to shreds the dogma that steam could never be used as a locomotive power, by the demonstration of that great railway system which has grown in an incredibly short space of time to be the very bone and sinew of the country. In place of the dogma he destroyed, however, he substituted the equally fallible one, that the rail was the *only* place for a locomotive engine.

Stephenson has passed away, full of years and honour, and a new generation has arisen who, while paying all tribute to the memory of his great name and fame, disregard his prejudices, even as he disregarded those bequeathed by the great men who had been his predecessors. For highly civilised countries, as main and branch lines of traffic, there is not, nor can be, a doubt that the railway affords facilities which no other means could ever even have dreamt of approaching, far less rivaling. But the expense of construction is enormous, and prevents the system being extended into short branch lines to meet the exigencies of small communities; here, then, is a want the traction-engine is called on to supply, in acting as feeders to the main lines of railways in country districts, and in the transport of minerals and coal, as well as other materials now conveyed by horses at an extravagant cost. And so attention has again reverted to the primary idea. Within the last few years many adaptations of more or less value have been brought out for enabling engines to traverse the common roads. Amongst the foremost and most important of these is the system invented by Mr. Bray, now worked by Bray's Traction-Engine Company, which embraces among its proprietors noblemen and gentlemen of the highest position and scientific acquirements. In starting on this principle, the inventor conceived as the chief requirement a method of obtaining a grip or hold of the road, as a horse when pulling a heavy load invariably catches the ground first with the point of his hoof, on precisely the same principle, as an auxiliary power, to be used when the adhesion of the plain surface of the wheel to the earth should not be sufficient to obtain motion. This he accomplished by means of an eccentric, fixed on the same shaft as the driving-wheels of the engine, but not revolving with it; around this eccentric is a ring, to which are attached rods, terminating at the circumference of the wheel in flat iron "spades," as they are termed, which are capable of being protruded or withdrawn to any extent at any given point, by means of a worm working in a wheel keyed on the shaft in connection with the eccentric. Motion is given to the driving-wheels by means of pinions on the crank-shaft, working in large rack-wheels, bolted on to the arms of the driving-wheels near the peripheries. The engines are geared for two speeds—one for heavy loads, at about 2½ to 3 miles an hour; the other at about 5 or 6 miles an hour. A new engine has lately been built by the company, in which some very important

improvements, which, we understand, are patented, have been made; amongst these we may allude to the outside framing, and the introduction of steel springs over the driving-wheels and on the front carriage—the object of the former being to give steadiness, and prevent excessive wear and tear of the wheels, and of the latter to do away with all jar to the machinery. The wheels themselves are of great strength, and so made that the outer tyre and brass bush in which the shaft works are the only wearing parts, and these can be renewed when required with a very little trouble. The workmanship and materials employed in this engine have been of the best description, and there seems to be no doubt as to its results. Engines belonging to the company have been employed at various important works, and drawn loads varying from 30 to 40 tons on common roads, with ordinary gradients, while the engine we have described is double the power of those that accomplished these feats; the cylinder being 9 in. in diameter, with 15-in. stroke, and the working pressure of steam about 120 lbs. The engines can also be fitted with arrangements for transmitting power to fixed or portable machinery, hoisting weights, so as to be capable of loading their own wagons, &c., and thus be made to answer all the purposes of portable or stationary as well as traction-engines.

On their first introduction an outcry was raised against these engines on the ground that they would frighten horses; but the engine we have just described has been out at work on various occasions, and we are assured that no horses have ever been alarmed at meeting or being driven past it. This important result has been secured by the working parts of the machinery being all cased in by a light framing, and also by the fact of a cone in connection with a fan being introduced in the chimney, which destroys almost entirely the puffing noise of the exhaust steam; for which latter suggestion the company are indebted to the Earl of Caithness, one of the honorary directors, who has introduced it with great success in his own steam carriage. In having thus gone into the merits of Mr. Bray's engine, we have not done so with a view of upholding it to the disparagement of other systems, which have equally some points of importance. It has accomplished great results that speak for themselves, and we adopt the old axiom that "success is the test of merit." We wish to, and believe we shall, see in time the system generally, universally adopted, and become a link in the chain to bind, by the interchange of the commodities of commerce, the great human family closer in the bonds of peace and friendship.

STEAM ON COMMON ROADS.

Traction-engines having of late created great interest, a few particulars of one of the most successful for rough road travelling will, doubtless, be received with satisfaction by many of our readers. The engine in question is one manufactured and patented by Mr. Thomas Aveling, engineer, of Rochester, Kent. It consists of an ordinary portable engine, with its cylinder (surrounded by a steam-jacket) placed in the smoke-box; the crank shaft being supported by bearings fixed on a saddle-bracket placed at the extreme end of the boiler-barrel, thus leaving the external crown of the fire-box free for the steam dome, which is fitted in the ordinary way, with safety-valve and its appurtenances. At one end of the crank shaft is a large fly-wheel, whilst on the other end is keyed a small pinion, which gears a small spur-wheel on a counter shaft below. An endless pitch chain, of most improved construction, is used for propulsion, reeved round a chain-wheel (keyed on to the axle of the driving-wheels), from the small chain pinion. The stud on which this revolves can be adjusted laterally in a curved slot formed in the bracket, being struck from the centre of the crank shaft. The stud shaft may, therefore, be pushed forward by means of a set screw to the full length of a curved slot, so as to tighten the driving chain without interfering with the gearing together of the spur wheel and pinion, which constitutes one of the essential features in Mr. Aveling's patent of 1859. The driving-wheels have rims 12 in. broad, but only take that bearing when running on soft ground. A tyre 4 inches wide is situated in the centre of the width of each rim, and on firm ground the engine runs on these tyres only. The engine can travel across a ploughed field, or bad road, by the ready adjustment of five angle iron paddles or clips across the rim of each driving-wheel. The wheels are so connected with the axle that either one may be disconnected instantly, so as to afford every facility for turning sharp corners. A cast-iron steering frame is attached in front, at the end of which is disposed a thin metal disc-wheel, not more than ½ inch or ¾ inch thick at the edge, actuated by a lever handle. A capacious feed-tank is attached to the fire-box, on the top of which is a bunker for fuel, and a foot-plate for the driver. The engine is fitted with reversing link motion, and throughout is of first-class workmanship, and would, doubtless, make a most efficient feeder of railways for the mining districts. Mr. Aveling informs us that he has already manufactured 31 of these engines, which are all doing their allotted work with the greatest proficiency; an ample testimonial in itself of their comparative practical merits, one having recently drawn a load of 12 tons, with perfect ease, up an incline of 1 in 6, the weight of the engine being when fully loaded 9 tons. In conclusion, we must congratulate Mr. Aveling in having brought his engine to its present perfect state, and heartily wish him the success he deserves.

JOINT-STOCK ENTERPRISE, AND THE COAL TRADE. A PROFITABLE SOURCE OF INVESTMENT.

The application of the Joint-stock Principle, on the Limited Liability System, for the extension of those mining enterprises requiring large capitals to develop them profitably, we are glad to observe, is now being made available for opening up many promising mineral properties, but which might otherwise have long lain dormant. In the profitable opening up of large collieries this observation particularly applies. The premium for lease, and the amount of outlay usually required in machinery for raising, pumping, trams, trucks, and surface work is generally beyond the private capitalist's means, and a very considerable time must elapse in opening up these properties before they can be rendered productive and remunerative to the investor. Having regard to home investments of a mining nature, there are, perhaps, none which have so little of the speculative character about them as collieries. The increase in the production of coal, according to Mr. Robert Hunt's return, of the Museum of Practical Geology, has now reached the enormous amount of 80,000,000 tons annually; and he asserts its daily increase is very large. Colliery property, like all other property, is becoming enhanced by the constantly increasing demand for coal for domestic, manufacturing, and export purposes, and which demand is not liable to any great fluctuations in the price of labour and machinery for producing it, nor of the profitable prices at which it can be sold; indeed, the whole business resolves itself into one of a judicious application of a sufficient capital to produce an always saleable article by means of machinery and labour, directed with the skill and integrity of an active and attentive management.

These remarks have been suggested by the perusal of the prospectus of the Chesterfield and Midland Silkstone Colliery Company (Limited), which appeared in last week's *Journal*, and to which we then only made a very short reference. The highly respectable commercial position of the directors is in itself a sufficient guarantee that the undertaking is one which will bear the fullest investigation of the most cautious investor. It is, indeed, rarely that we have so clear and definite a statement of the conditions on which the public are invited to become holders of shares with the promoters of a joint-stock enterprise. It is particularly worthy of being noticed that the promoters have reserved nothing whatever in the shape of exclusive benefit for themselves, but they unreservedly ask the public to participate on perfectly equal terms with them. They plainly say that they will take no payment as promoters or projectors of the company. The directors have also undertaken the praiseworthy responsibility that in the event of there not being fully one-half of the nominal capital subscribed, they will not proceed with the enterprise, but will return all the deposits in full to those who may apply for shares.

While thus giving a guarantee that the project is a well-matured affair, and totally free from any suspicion of being got up for the special benefit of the projectors and promoters, the directors have fully secured a concession of the colliery on most favourable terms for the shareholders. Thus it appears that the lease is for a term of thirty years, and the only conditions are these—a rental of 210l. per acre of coal actually removed, of which a minimum of 17 acres must be annually worked:—While the lessors bind themselves to construct and keep in repair a branch line of rail, with proper sidings, to join the pits with the Midland Railway, and to convey thither all the company's coal at a charge of 6d. per ton; and for these very easy and favourable terms the company will have to pay nothing as a bonus for a lease, as is usually the case; and thus the whole capital of the company will be at the disposal of the directors to apply in the construction of the necessary works, and the prosecution of the general business of the company.

The cost at which the coal of the best quality of Silkstone can be raised

is 4s. 6d. per ton (including all royalties, expense of management, and a fair allowance for the redemption of capital expended in opening the colliery), will, it is estimated, yield a minimum profit of 21 per cent., and that there is a certainty of a dividend being paid within twelve months from the commencement of the works. It is further estimated, from facts attested to in the able and full reports of those eminent colliery engineers, Messrs. Brown and Jeffcock, of Sheffield, and Mr. T. Harrison, of Barnsley, that from 40 to 60 per cent. profit may be realised by the full development of the capacities of this singularly valuable property.

To fully develop the property, the directors think it will not be necessary to call up more than two-thirds of the 40,000l. nominal capital of the company. The terms of subscription are 10s. per share on application and 20s. on allotment; the future calls not to exceed 1l. per share, with three months' notice. These terms cannot but be considered as very easy, and inviting to all investors looking out for a fair chance of a large remuneration for their capital. Any attempt to give a complete account of the particulars of the project would involve us in the task of reproducing the prospectus; we, therefore, conclude by expressing a confident feeling that all interested cannot do better than to peruse it, as it will be found in our advertising columns.

COLLIERY WORKINGS—UNDERGROUND INCLINES.

A pair of high-pressure coupled winding-engines have recently been erected at Drummore Colliery, near Edinburgh, for working the underground inclines in the "Great seam." The cylinders are horizontal, 16 in. in diameter, 3 ft. stroke, link valve motion, and drive two 7-ft. drums—one in front and the other behind the crank-shaft,—by means of Robertson's patent frictional gearing. By this invention, which is a substitute for toothed wheels, when either drum is to be brought into gear, instead of shifting the drum one or two inches, according to the depth of the teeth, the surfaces of the wheels are simply brought into contact, and the adhesion is found sufficient to lift any weight that the engines are capable of, while they slip if any undue strain comes on, and thus prevent breakage. The machinery is placed on the surface, and wire-ropes are led down the shaft to two inclines, which proceed from the bottom of the shaft to the dip of the field. When either drum is thrown out of gear, to allow the empty trucks to descend by their own gravity, the wheel comes in contact with a block of wood fixed on a stud for the purpose, which acts as a break in regulating the speed of the descent. The travel of the shaft between full in and full out, and pressing upon the break, is only three-eighths of an inch, and it can be thrown in or out by a boy when the engines, which move continuously, are going at any velocity. The machinery is capable of drawing from 250 to 300 tons daily. The makers are the FRICTIONAL GEARING COMPANY, Glasgow, from designs by Mr. RALPH MOORE, mining engineer, Glasgow.

REPORT FROM NORTHUMBERLAND AND DURHAM.

SEPT. 19.—The coal exports for the month of Aug. show a considerable falling off as compared with the exports in August last year. This applies to all the large north-eastern ports, without exception. The exports from Newcastle being 197,612 tons, against 231,660 tons; Shields, 4428 tons, against 4156 tons; Blyth, 12,546 tons, against 14,389 tons; Amble, 5850 tons, against 7304 tons; Sunderland, 102,236 tons, against 121,706 tons; Hartlepool, 58,204 tons, against 75,197 tons. The total exports being 399,393 tons, against 476,755 tons; the falling off being no less than 77,362 tons. This, however, has been caused mainly by a scarcity of shipping, and cannot be taken as an indication of the state of trade. The trade, on the whole, is in a very healthy, though not particularly active, state. The puddlers' strike is happily near at an end; this class of workmen have lately struck at all the leading works in the North, and thus added very much to the depression so generally felt in the iron trade. They have, however, resumed work, having accepted the proposed reduction at the Consett Iron-works, and at most of the other works they are expected to resume work during the present week, or very shortly. We noticed lately that several partial strikes had taken place at the collieries in Northumberland; arising out of one of them the following important case was heard before the Northumberland county magistrates, on Monday week. A number of boys were charged with leaving their employment at the Broomhill Colliery without having given legal notice. The manager of the colliery stated that the boys all worked under a monthly agreement, and that he was entitled to a month's notice before they could leave their employment, that the conditions were exhibited in a conspicuous place at the pit, where all the parties employed at the colliery had access to at all times, and that all the contracts were verbal. On Sept. 2 the boys applied for an advance of wages, and on being refused they struck work on the following day. For the defence it was contended that infants were not competent to bind themselves by this contract, and that, therefore, they were not liable to punishment. The Court ruled that infants were entitled by law to make contracts which are beneficial to their personal interests, and that such a contract subjects them to all the legal regulations applicable to masters and servants. Three of the boys were convicted, and committed to prison for one month, with hard labour. Before the other cases were gone into, it was arranged that each of the parties should pay a fine of 1s. and costs, on condition that they return to their work on the following day. Mr. Charles Swan, of Morpeth, conducted the case for the owners of the colliery, and Mr. Payne, of Alnwick, for the boys. The new colliery at Seaton Delaval is now rapidly approaching completion. The erections at the shaft present many novelties. The principal frames are of iron, on the tubular principle, instead of the usual material—wood. These frames have lately been manufactured at the well-known works of Hawks and Co., of Gateshead. The shaft pulleys have also been sent from the same works, and are 20 ft. in diameter. The whole of the erections here are on the largest scale, and when completed the works will deserve the title of a model colliery, both as respects extent and excellence of arrangement. The winding-engine we have formerly noticed. It is on the most gigantic scale, and can boast of many novel arrangements. We expect shortly to give a more detailed account of this important concern. Mr. O'Regan's apparatus for the prevention of the smoke nuisance has recently been applied by Mr. Nicholas Wood at the Black Boy Colliery. It is said that the invention has also been successfully employed with puddling, welding, and other furnaces of a similar description, and that it has been patronised by the Admiralty and Board of Works, as well as by the French Government.

At a meeting of the local Exhibition Committee in Newcastle, yesterday.—Mr. Hugh Taylor, the President of the Coal Trade, in the chair—it was agreed to apply for space for a series of models, representing the whole process of working, screening, and shipping the coals, and the Chairman undertook to call a special meeting of the trade to decide upon the details and mode of arrangement of the models.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

SEPT. 19.—The reports from the makers of Finished Iron concur in representing the improved demand previously noticed as continuous. The extent of the accession of orders is only slight, and but few of the makers are able to keep their works in full operation. Some of them are beginning on Tuesday evening instead of Wednesday morning, and that represents about the extent of the improvement. Pig-iron has been extensively sold. Very large parcels of hematite pigs have been disposed of, and the principal maker of that class of iron has entered into contracts which will extend over nearly six months. Rather higher prices have been paid, and an advance of from 1s. 3d. to 2s. 6d. per ton may be quoted on the prices of the commencement of the quarter. The fact that contracts have been made to such an extent for forward delivery sufficiently proves, however, that makers do not expect prices to go up much higher, and that manufacturers of finished iron do not anticipate any reduction. A considerable advance is improbable. A very large number of blast-furnaces have been recently blown out, in consequence of the falling off in the demand, and an advance of 5s. per ton would suffice to put many of these into renewed operation, which, by increasing the supply, would at once check an advance in price, except in the case of a very greatly increased demand. This is certainly not likely to be felt for some time to come. The American war must greatly diminish the demand whilst it lasts, and its speedy termination can scarcely be anticipated; and even if it were suddenly to cease, the exhaustion which the country has experienced would for some time check enterprise. On the other hand, pig-iron is not likely to be lower, as the price has fallen to a point so near that at which the article can be produced that any further reduction would be stopped by a decrease of make.

The disputes with the Puddlers in North Staffordshire continue, and in some cases where the men had gone to work they have again ceased. Comment on these contentions between master and employer become warlike, but the annual deduction from the wealth of the country as the result of these struggles to adjust the rate of wages is fearful to contemplate, apart from the bad feeling which is engendered, and the bad habits often acquired.

The attempt to establish a regular Exchange at Birmingham is progressing, and the promoters feel sanguine of success. The trade of that town, and the hardware trades of South Staffordshire, continue steady, but rather quiet. A steam-hammer of very large dimensions has been erected at Messrs. Hill and Smith's Iron-works, Brierley Hill. Mr. Wylie, of London, late of Glasgow, is the maker. The hammer weighs 5 tons, and is intended for forgings of the largest character. The cylinder has a stroke of 6 ft., and is made of the very best cold-blast cast-iron. The whole weight of the apparatus is 80 tons. An influential company met a few days ago to witness the inauguration of this powerful hammer, which is said to be the largest in the district.

An important meeting of the Birmingham local committee for the management of all matters appertaining to the Exhibition of next year, was held on Friday last. Mr. Perry, the Chairman of the Chamber of Commerce in Wolverhampton, had called the attention of the Chamber to the question of exhibitors being admitted to the building free of cost, as they were at the Paris Exhibition, and the meeting expressed their concurrence in Mr. Perry's view, that such a privilege should be accorded to each exhibitor. There were 240 persons who proposed to exhibit in the district placed under the management of the Birmingham committee, which includes most of the South Staffordshire towns. The space required is 40,000 square feet—30,000 feet of floor space, 8000 of wall space, and the remaining hanging space for chandeliers and similar articles. As

the jurors are to be appointed by the votes of the exhibitors, it was determined, as soon as the list of exhibitors has been closed, that a meeting of the exhibitors shall be called, so as to unite the votes of all the exhibitors in that district in favour of persons competent to act as jurors.

The Annual Exhibition of the Staffordshire Agricultural Society is being held this week at Wolverhampton. These exhibitions afford another illustration of the extending use of iron in all departments of industry. The number of implements which are collected at this show is enormous; and it is not only in the more difficult operations of agriculture that iron implements come to the aid of the farmer, but the extent to which iron-fencing, gates, feeding-crates, &c., are now employed helps to account for that extraordinary increase in the consumption of iron which the *Mining Journal* is frequently illustrating by statistical statements.

The new Education Regulations, promulgated by the Committee of the Privy Council, are exciting considerable attention in this locality. Teachers complain of the injustice which will be done to them by the forfeiture of the promises on the faith of which many of them entered the profession, whilst they draw the public attention to the injurious influence which they assert the new regulations will exercise on the education of the lower classes. The question is one of a serious character, and it strikes one as a summary procedure to revolutionise existing arrangements by a resolution of a committee—a course more in accordance with the practice of the land of *coups d'état* than of one where private interests are always protected, and in which the rule is to make no change except after all parties have had an opportunity of stating their views.

The Birmingham Water-Works Company has declared a dividend for the half-year at the rate of 6½ per cent. per annum; and the Birmingham Gas-Light and Coke Company have declared the usual dividends for the half-year, at the rate of 9 per cent. per annum on the A and B shares, and 7½ per cent. on the new ordinary shares.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

SEPT. 19.—There has been no alteration of material importance to notice in connection with the Iron Trade in these counties during the week.

The trade assumes a healthy tone, and there are more orders in hand, both for the home and foreign markets, than we have had to notice for some time past. The continuation of the American crisis is leading to a very strong assumption that the supply of cotton will be limited for some time to come. The manufacturers of Lancashire have intimated to their workpeople that it is probable they will not be enabled to maintain their mills in full work, owing to the apprehended scarcity of cotton. This fact causes a desponding tone to pervade the manufacturing trades of Lancashire.

The Coal Trade is not so active as is usual at this period of the year, which is mainly owing to the depression in the general trade, but as the demand for the autumn is beginning to be felt, an improvement may be immediately expected. At some of the collieries the men are not making full time, but this is owing to the fact that the stocks have been allowed to accumulate to an inconvenient extent, so much so that it has been found necessary to reduce the production. This does not apply to the hard coal, for which there is a very brisk demand. It has often been a subject of remark that there were so few joint-stock companies established for the working of the minerals of North Derbyshire. Some time ago a company was formed under limited liability, for the purpose of working the coal on the Whittington estate. A prospectus was issued, and a large quantity of the capital was subscribed, and the company had fair to go on. But a split in the cabinet disclosed the fact of a nice little fibrous having been planned, in order to put some of the parties in an advantageous position, which led to the breaking up of the concern. A new company has just been formed to work the coal on the estate of Sheepbridge; it is known as "The Chesterfield and Midland Colliery Company." The company propose to raise a capital of 40,000*l.*, in 8000 shares of 5*l.* each. It cannot be doubted but that the district is the very best that could be selected under the circumstances. The coal is of excellent quality, and it is certain that the Dunstan and Barlow Company will become large purchasers, from the fact that their own pits are inadequate to supply the requirements for the three blast-furnaces. Another split is building, and will require so much more fuel. The branch railway from the Dunstan and Barlow Company's works to the main line of the Midland will obviate the necessity for a large outlay of capital, and will enable them to compete with those coal masters who enjoy the advantage of a line to the pit's mouth. The charge of 6*d.* per ton carriage is quite ample. There are to be no free shares, and the entire capital of the company is to be applied to legitimate purposes. The coal field is sufficiently extensive to work during the time the lease will be in force. The calculations of the directors on the probable profits of the company are derived from data; and it appears certain that, should the affairs of the company be carried out with judgment and economy, a large return will be made on the capital employed.

Three informations have been laid against the proprietors of, and one against a deputy in the Renshaw Colliery, by Mr. Hedley, the Government Inspector of Mines for the district. On June 10 an explosion took place, and burned a collier, and no notice was given of the accident to the Inspector. Again, when Mr. Hedley inspected the pit, on June 20, he found another heading unventilated. In consideration of Messrs. Wells's general good management, the penalty was mitigated to 40*s.* in each of the three cases. The deputy was fined 40*s.* for leaving the colliery before the men and boys left work, and neglecting to appoint a competent person in charge.

Early on Wednesday an accident occurred at Messrs. Knowles and Stott's Ringley Colliery, by which Thomas and James Atherton (brothers) were killed. Deceased, along with their father, William Atherton, were getting coal when a large quantity of the mineral fell, and killed the two sons upon the spot, fearfully bruising their bodies. The lead mines of the Peak are making tolerable progress, and at Eyam, Mill Dam, and several private properties there is some good work being done, but some others are not in such a favourable position. The Mill Town Company's Mine is not yet through the toadstone, and it is uncertain when they will be through it.

There is a little more enquiry for mining shares this week, but they have been confined to a few of the more successful ventures.

REPORT FROM MONMOUTH AND SOUTH WALES.

NEWPORT, CARDIFF, AND SWANSEA, SEPT. 19.—The Abercarn strike, and the violent conduct of the men, has been the chief theme of conversation for the last few days. As reported in previous numbers of the *Journal*, the Abercarn colliers have struck for an increase of 6*d.* per ton. They were stimulated to this unreasonable demand by the recent success of the men at Risca, which is only a few miles distant. The Abercarn Company refused to accede to the men's proposal, and hence the strike, which has now lasted for several weeks. Up to Thursday, the 12th inst., peace was preserved, and the men contented themselves with parading the narrow lanes and streets occasionally. On Thursday, however, matters changed, and the old practices of fifty years ago, which were thought to have been long buried in oblivion, were once more revived. A number of the Risca colliers came up, and they, in company with some Abercarn men, determined to make an attack on Gwllim, the foreman's house. They dressed themselves in women's clothes, carried the furniture out, and Gwllim only narrowly escaped from getting into their hands by making his way out unobserved through the back door. The police were immediately communicated with, and twelve of the principal rioters were apprehended, and brought before the magistrates on Monday. Mr. Owen appeared for the men, and they were remanded until next Monday. We understand that the company have determined to stop the pit for the present, and men are now engaged in raising the level pits.

The strike threatens to become more general, as the Abercarn colliers have just followed in the same course as their comrades at Abercarn. The Abercarn and Abercarn Collieries are the property of the same company, consequently it is quite clear that a combination has been determined upon by the men. Strikes have been the bane of the neighbourhood for years past, and it is to be hoped that the present dispute will soon be satisfactorily arranged.

William Churchill and William Evans were brought before the Pontypool magistrates, on Saturday, charged with stealing a quantity of coal, the property of the Pontypool Iron Company. The prisoner Evans was seen taking the coal from the stock, and he carried it to some distance, and then gave it to Churchill. The case was not pressed, and the defendants were discharged on payment of a fine of 10*s.*, including costs.

On Saturday, a lamentable accident occurred on the tramroad near the Black Vein Colliery, Risca. The colliers are in the habit of riding on the trucks from one pit to the other, and a young man, named James George, availed himself of this practice on Saturday. In alighting near the works he missed his footing, and the train of trucks passed over his body, and he was instantly killed. An inquest was held on the body at the Sugar Loaf, and a verdict of "Accidental Death" returned.—On the same day a lad, named Henry Harry, lost his life at the Alltwen Colliery, Loughor. It appears that he was engaged in his usual avocation when a stone fell from the roof, and he was killed on the spot.—A few days since, a collier, named William Jones, was severely injured at the Gellynion Pit, Pontypool, from an explosion of fire-damp. Mr. Cooke, the surgeon of the pits, paid every attention to the unfortunate man, but all that medical skill could suggest proved unavailing, and he died on Saturday.

The Betts Big Vein, near Bridgend, lately won by Mr. Cadman, has just been sold by that gentleman to a Cardiff coal merchant. The produce will be carried by the new Llynvi Valley Railway and the South Wales to the East Bute Docks, Cardiff, as well as to the Briton Ferry new docks.

PREVENTING INCrustation OF STEAM-BOILERS—NOVEL APPLICATION OF PEAT.

—The advantage of employing pure water in steam-boilers is too well known to require comment; and the processes by which it has been sought to remove impurities have been very numerous. Mr. John Cameron, of the Hematite Iron-works, Hindpool, now proposes an extremely simple method of causing vegetable acids to act upon the impurities which have usually to be contended with. He forms a tank with two divisions, that may hold from 50,000 to 60,000 gallons of water; one division being upon a lower level than the other, so that the contents of the upper division may be emptied into the lower. The upper tank is filled with water, and about 30 tons of peat is added to each 25,000 gallons of water; the peat is put in part dry and part wet, and is occasionally stirred, that every part of the water may be acted upon. It is then left at rest, and the organic compounds (humic, ulmic, humic acid, ulmic acid, crenic acid, and apocrenic acid) existing in the peat precipitate the earthy matters contained. The purified water may then be drawn off into the lower tank, and the upper tank refilled.

NEW STEAM-HAMMER.—For some months past a new working cylinder steam-hammer has been in course of erection at the iron-works belonging to Messrs. Hill and Smith, at Brierley Hill, and a number of gentlemen practically acquainted with such machinery attended to witness the mode in which it worked, and discuss its merits compared with other similar inventions. The hammer was made by Mr. Wylie, formerly of Glasgow, and now of London, and is by far the largest in the South Staffordshire district. As it will doubtless in course of time do away with the old helve hammer now used for shingling purposes in this district—not to mention the fact that without something like it no large forgings can be completed—it may not be uninteresting to give a brief description of its construction. The hammer is one of 5 tons weight, and designed for forgings of the largest class. The framing consists of two vertical iron columns, connected by a transverse section 16*ft.* apart. They are bound together by a strong iron-beam, through which an opening is made for the passage of the cylinder or hammer-block. These two lower columns are surmounted by a pair of segmental frame pillars, which joined form an arch springing up to a height of 23*ft.* from the ground. These semi-circular pillars are joined together at the crown centre by internal frames, leaving sufficient space to receive the entablature and part of the valve gearing. The upper and lower columns are joined to each other internally, in spigot and flange fashion, their junction flange being firmly secured by strong bolts and nuts. The upper columns are secured to the horizontal beam by massive malleable iron

stays. The vertical guides for the cylinder traverse are fixed to the horizontal beam, and also to the arch above, provisions being made for adjusting them by means of liners. The cylinder, or hammer-block, has a stroke of 6*ft.*, and is cast of the strongest cold-blast iron. A small horizontal steam-cylinder is attached to the entablature, the piston-rod of which is connected to the double-belt steam and exhaust valves by a lever and link arrangement, and the attendant has merely to touch the steam-slide valve of this miniature engine to raise the hammer to its desired height. The hammer complete weighs about 80 tons. Among the company present were Mr. R. Smith (Lord Dudley's agent), Mr. Froer (Brown and Froer), Mr. Walter May (Suffolk Works, Birmingham), Mr. H. Parker, Dudley, Mr. Walker, Netherthorpe, Mr. Green, Dudley Bank, Mr. Thomas Webb, Stourbridge, Mr. Hunt, Congreaves, Mr. G. Smith, Dudley, Mr. Musgrave, Bolton, and the maker—Mr. Wylie. All expressed their entire satisfaction with the machinery and its working.—*Birmingham Journal.*

TREATING IRON PYRITES.—An invention has recently been patented by Mr. John Longmaid, of Inver, Galway, for treating iron pyrites and other ores containing copper, silver, and tin, or either of them, and sulphur, which consists in first crushing the ore and passing it through a sieve having about 100 holes in the square inch, and afterwards calcining it and treating with common salt. The invention appears to be a modification of, or improvement upon, the inventions of Mr. William Longmaid, patented 1842, 1844, and 1845. According to the new invention the partially calcined pyrites and salt are kept at a low red heat, until decomposition converts them into sulphate of soda and soluble chlorides of the metals. These are washed out and precipitated with iron in the usual manner.

FOREIGN MINING, AND THE NEW TARIFFS—No. VI.

Advices from Charleroi state that the prices of *fontes* and irons remain firm, and that orders are abundant. This situation of affairs is all the more satisfactory since at this period of the year business is generally stationary. As an instance of the business doing, it is stated that one large establishment has effected a transaction of 3000 tons of refined *fonte*. The construction of railway machinery and material is assuming considerable importance in the Charleroi district. A new establishment has been erected at Couillet by Messrs. Batty and Mathysen, and has several important orders for boilers and locomotives to begin with. The other establishments are equally well off for orders, and much activity is remarked in the heavy rail trade. Nothing fresh is noted in connection with minerals; prices of good hydrates are, however, well sustained. All is ready for the resumption of extraction in the Charleroi collieries on a grand scale; the agents of the various owners on circuit have been endeavouring this year, thanks to the extension of communications, to enlarge the range of their *clientèle*, to use the felicitous expression answering to the English the deepening of the Sambre from Châtelineau to the frontier. Some word "connection." Works have been for some time in progress for of the collieries, in consequence of the closing of the navigation towards France, have only been working four days per week. The Liège coal market remains without variation. The closing of the gates of the sluices of Avroy and of the cannon foundry, rendered necessary by the cleansing of the sewers of the town and some urgent repairs, recently stopped the despatch of coal towards Holland. The workers of the Liège basin do not seek now to run off immediately the product of their extraction, as has been the case in preceding years. At the commencement of last winter several coalowners could not meet the numerous orders which reached them, and regretted having sold their production during the summer at relatively low prices; hence the change of tactics. The demand for *fonte* is quiet, and prices do not rise, notwithstanding the great activity which prevails in connection with the fabrication of iron. The great production of the blast-furnaces of the province, which at other periods flowed away to some extent to Germany, remains in the district, and prevents a rise in *fonte* as well as irons. The workshops of the province are at present in a prosperous state. Work is not wanted for the moment, but fresh orders are rather anxiously looked for, in order to maintain the same activity during the approaching winter. A slight rise is reported in rough zincs at Liège, but copper is falling. There are rumours of the establishment of new rolling works both in the Charleroi and Liège districts; in the meantime the owners of blast-furnaces at Liège have been endeavouring to run off at Charleroi a portion of their large stock of *fonte* which has resulted from the loss of the German market. The improved feeling in copper has been sustained on the Paris market, and although the rise has not yet been freely decided, still holders maintain their prices. But little animation has prevailed in tin; nevertheless the reduction which English tin has undergone has not exercised any influence on the Dutch market, where prices have been sustained. Lead is not much sought after, the principal outlet, America, being closed. Prices have undergone very slight variation, in consequence of the little activity which prevails in the principal markets. Zinc has readily sustained former values; the demand continues to be very active, and prices are generally tending upward.

The French company which has a concession of the copper mines of Huelva, in Spain, has, after a long and careful deliberation on the part of the Spanish Government, received further powers to construct a railway 27½ miles in length from its mine at Tharsis to the port of Huelva. In order to execute the work, the management has been authorised by the shareholders to contract a loan of 144,000*l.*, and a third of this capital is being at once realised by an issue of obligations, in order that the least expensive portion of the line may be immediately executed. The company, which has been six years in existence, owns mines of pyrites at Tharsis and Cabanas, which are reckoned amongst the richest of the province of Huelva, in Andalusia, and has collected around its works a considerable working population, not existing previously in that part of the country. Established with a capital of 240,000*l.*, of which about 171,000*l.* has been called up, the company aims at the extraction and sale of a mineral composed of sulphur and copper, a part of which is handled upon the spot, in order to be converted into metal, while the remainder is exported to England, where it finds an assured sale among makers of sulphuric acid and copper founders. As a proof of the importance of the trade thus done, it may be stated that the sum paid by the company for the transport of mineral to the point of embarkation amounted between Jan. 1, 1857, and June 30, 1861, to more than 144,000*l.* Independently of a great number of galleries in full development, the mine at Tharsis possesses an open working which now presents a compact mass of minerals representing more than 140,000 tons, while even this large total is only a small portion of what remains for extraction. The annual consumption of pyrites in England being very considerable, while the product of the mine at Tharsis could easily be quintupled, the construction of the railway indicated above has become a pressing necessity.

M. Thoma, a director of ironworks in Hungary, has been providing for the separation of the three metallurgical operations involved in the production of *fonte*—the reduction, carburization, and fusion of the ironstone, which is effected at present in a single blast-furnace—into three distinct processes, conducting each in a special apparatus. M. Thoma has been guided by the idea that when the transformatory processes are conducted in a single furnace the situation and nature of any irregularity cannot be immediately perceived, and the work becomes much more difficult than if each operation were effected separately. The new method requires three distinct operations:—1. Calcination of the mineral, and breaking it when it is in large pieces.—2. Carburization of the calcined mineral.—3. Fusion of the mineral. A distinction is drawn between heavy mineral and mineral dust, the construction of the apparatus employed differing in each case. The calcination of the pieces of minerals is effected in a furnace by means of a flame of gas produced from peat, lignites, or other combustible. Care is taken to cleanse the gas arising from combustible rich in sulphur, which exerts an injurious influence on the mineral. The furnace is charged from above, as are other calcining furnaces, and the product is afterwards extracted by two openings below. The daily product of a furnace is from 200 to 250 metrical quintals of perfectly calcined mineral, and from 50 to 60 quintals of combustible suffice, in the majority of cases, to accomplish this result, giving a very low value as the return price of the mineral. The calcined mineral is drawn out while it is still red hot, because it cracks, displays small longitudinal fissures, and is then easy to break. The breaking is effected by hammers, moved by water-power, and the mineral is reduced to pieces of a size of 5 or 6 cubic centimetres (a centimetre is 0.39 inch English). The carburization of calcined and broken mineral takes place in a furnace of masonry of peculiar construction, in which the mineral descends into the midst of a current of warm ascending gas, which acts as a reductor; the mineral being cooled again before coming into contact with atmospheric air, in order to avoid all oxidation. The reducing gases, cleared of all sulphur which they may contain, are obtained from peat or lignites. Only sufficient air is introduced to carry to an intense red heat the parts not transformed into carbonic acid, all the success of the operation depending on the temperature of the gas. The reduction and carburization of the minerals in the apparatus of M. Thoma is the same as in an ordinary blast-furnace, only the processes take place with less expense for high-priced combustible, and with an economy which M. Thoma contends cannot be attained by any other method, while the combustible employed is utilized under its best form. There is no contact between it and the mineral, and consequently the latter cannot be defiled

or deteriorated. Further, it is claimed for M. Thoma's apparatus that in its use all the "reactions" utilized in a blast-furnace are obtained under the best conditions. Each carburization furnace furnishes every day from 75 to 100 metrical quintals of carburated mineral, and its consumption of lignites amounts to more than 40 quintals every 24 hours, so that each quintal (a metrical quintal is about 230 lbs. English) requires some 54 to 58 kilogrammes (a kilogramme is rather more than 2 lbs. 3 ozs. English) of combustible; with peat of ordinary quality the expenditure is at the rate of 2 to 2.33 hectolitres per quintal of mineral. After the operation has been effected, the product is free from silica, the iron being reduced and carburated without having been exposed to a temperature to which silica could reduce it, and the sulphur has been entirely expelled by a desulphurating calcination with the steam of water. Phosphorus not making part of the minerals treated by M. Thoma, nothing is known precisely on that head, but it is, nevertheless, considered that the new process is as proper for separating phosphorus from iron as the method employed in an ordinary blast-furnace. Manganese, again, could not combine with iron at the temperature which prevails in the carburization furnace; it must remain in the earthy mixtures of the mineral, enter then into the combination of a dross easily fusible, and contribute to the greatest part of the product. The wind necessary for putting the furnace into activity is furnished by a simple ventilator, or fan, four horses being sufficient to work two fires. As regards the preparation of pulverised or dusty mineral, the double processes of calcination and carburization are effected in a reverberatory furnace, having two flat bottoms, placed one over the other, the calcination taking place on one, and the carburization on the other. The furnace is charged by means of apparatus placed in the vault or arch, and the mineral is extracted by doors in the side walls. The mineral is spread to a height of 15 or 16 centimetres, or more, on the calcining floor, or flat, and it is cleared away after being heated for two hours. It is then mixed with a coaly substance, in such proportions that the carbon of the matter can reduce and carburate the iron of the mineral. The coaly matter which seems to give the best results is the upper crust raised from the surface of turf-pits, as it does not sensibly differ from the primitive ligneous fibre, and does not contain either sulphur or phosphorus. The mineral is left on the carburization floor two or three hours. The daily return of a furnace is about 30 metrical quintals; when gas from lignite is used the consumption amounts to 22 quintals of that combustible, or about 66 kilogrammes per quintal of carburated mineral; with peat the consumption is about 3½ hectogrammes. As regards the fusion of the carburated minerals, the important point in the operation is a good formation of beds of fusion, and the dross should be as fluid as possible. M. Thoma recommends the following combinations:—

Silica.	Lime.	Alumina.	Total.
55	30	14	100
60	31	19	100
40	38	22	100
28	45	27	100

The fusion fire is only a blast-furnace of ordinary dimensions, with boshes making an angle of 60° or 70°, and a cuve or tubing 3½ to 4 metres (12 or 13 ft. English) in height. The furnace possesses five tuyeres (the conical orifices through which the blast is imparted), which render its action very regular, and diminish the expense of combustible. M. Thoma believes that he could utilize to his method old-fashioned blast-furnaces worked with charcoal, or the more modern ones in which coke is employed; in order to transform the latter for fusion purposes it would be necessary to straiten the lower part. The fusion can be effected with charcoal, coke, or purified turf or peat; and recourse can also be had to anthracite, especially when it is desired to produce cast pig by hot-blast. The expenditure of combustible in the fusion is from 30 to 40 kilogrammes per metrical quintal. The blast is effected as in an ordinary blast-furnace, but the fire begins to operate almost immediately. The lime used is introduced as quicklime. The gases from the furnace top or mouth can be, besides, utilized for the calcination of the mineral, and employed in the carburization furnace, heating the wind proceeding from the blast-pipes, &c. M. Thoma recommends for the blowing apparatus the plunging-piston of M. Furiet, which does not require for its operation a motor exceeding five-horse power. With such a force as this a double-cylinder apparatus can be worked, making 25 strokes per minute, and throwing into the furnace 20 to 25 cubic metres of wind per minute, at a pressure of 6 to 7 centimetres of water. The advantages claimed for M. Thoma's method—to "generalize," as our Yankee friends (may they speedily shake down peaceably again) would say—are greater expedition, greater facility of correcting any irregularities which may arise, furnaces which can be blown in and out in less time, blowing apparatus smaller and less expensive than those used in old-fashioned furnaces, and the adoption of combustibles, such as lignites and peat, which are at present almost unused in metallurgy, while the quality of the product does not in any way suffer. These are all objects of great importance, and if they are attained metallurgical industry will be much indebted to M. Thoma.

THE SALT TRADE OF AMERICA.—The quantity of salt manufactured in the United States in 1859 was estimated at about 14,000,000 bushels. The quantity manufactured in 1860 shows about 750,000 bushels deficiency. While some of the States have increased their production, other States decreased their manufacture of this article—the State of New York produced in the Onondaga Valley, 1,300,825 bushels of salt less in 1859; and the production of 1859 was 138,847 bushels less than that of 1858. While during the same time, the States of Michigan, California and Texas, have considerably increased their production.

CANADA AND ITS MINERALS.—A joint-stock enterprise is about to be introduced to the notice of the British public, having for its object the more vigorous and perfect development of the minerals deposits in Canada. In order to bring this important result to a speedier issue, the Legislature of Canada have granted powers and privileges to this company of no ordinary character.—Indeed, it is said that the CANADA RAMSAY LEAD MINING AND SWEETING COMPANY, for such is the title under which it has been incorporated, will possess advantages and facilities greater than have hitherto been conveyed to any mining company. As indicated by its title, the company's operations will, in the first instance, be directed to the development of the Ramsay Mine, which is situated within a mile of the Brockville and Ottawa Railway, and surrounded by a settled and well cultivated country, where labour and produce are at all times obtainable at moderate cost, and where mining supplies are easily procurable. As to the mineral value of the property, it may be mentioned that the eminent geologist, Sir William Logan, after a thorough examination, states that although at or near the surface the breadth of the lode is from 3 to 5 ft. wide, there is little doubt of its great depth—a depth, indeed, to which no certain limit can be placed; in addition to which several competent authorities, among whom Capt. Trevelyan, who for some years has had charge of the Rossie Lead Mines, about 45 miles from the Ramsay property, have given it as their opinion that the mines cannot fail to be productive; and the best evidence that can be adduced as to the quality of the mineral which the Ramsay Mines return is the fact that a thousand pigs of lead, the produce of the company's property, met with a ready market at nearly 26*l.* per ton. Some time since a series of general explorations were commenced, in order to thoroughly test the value and extent of the mineral, which were of the most satisfactory character. An engine-shaft had been sunk to about 10 fms., and an engine and smelting-house erected, but it being subsequently found that the engine was unequal to any considerable augmentation in the scale of operations, it was agreed that the further development should cease until a more powerful engine had been erected. It is estimated that the capital subscribed in Canada will be sufficient to work the mines, but it is proposed to connect therewith extensive smelting-works, with the view of purchasing and smelting ore from other localities, to secure which object it is proposed to issue in this country 45,000 shares at 1*l.* currency, or 16*s.* 6*d.* sterling each. As the only similar works are situated nearly 200 miles distant, it is urged that no apprehensions need be entertained as to any competition, at any rate for some considerable period. The commercial position in Canada of those whose names will be attached to the prospectus is such, it is said, as to ensure honourable and efficient management.

MINING IN FLINTSHIRE.—In a locality such as Flintshire, where mining enterprise is reviving the celebrity which the county formerly enjoyed, it is not the few individual mines only which are best known and most spoken of, such as the Bryn Gwio, the Long Rake, Rhosmor, and a few others, which constitute its importance. Other mines and mining adventures, worked with less éclat, but not perhaps on that account with less chance of success, are springing up around the nuclei which are supplied by the above-named undertakings, and are, many of them, likely in their turn to equal or surpass their models. In the neighbourhood of Holywell is more than one undertaking of the kind, the Llanerch-y-Bald Mine, for instance, now being worked by a limited liability company, formed privately in London, and the prospects of which seem remarkably good. Its ground extends over some hundred acres, containing several parallel veins, one of which a shaft was sunk many years ago, from which large quantities of ore were easily extracted. This shaft, however, being in soft ground, and having fallen in, a new one was commenced in harder rock in its neighbourhood, and was continued at different times, with a view of reaching the splendid ore left in the fallen shaft, by several parties, none of whom possessed sufficient means to carry them to a successful result. The present company is continuing their work, and, having reached the vein by a cross-cut, must soon reach the spot whence ore in abundance can be obtained. But this is not all, for from another old shaft, upon a different vein, large quantities of lead were raised very many years ago, without any proper appliances for efficiently doing so. The present company has cleared out these old workings, and found them so extensive, and containing such splendid samples of ore, as to determine upon the immediate erection of a small engine, sufficient to drain the mine to a greater depth than at present attained, also of cost more than 200*l.* or 300*l.*, and this is accordingly being done, with an apparent certainty of immediate profitable results under the superintendence of Mr. Edmund Edwards, C.E., who has the management of the mine. This mine is but an example of one of the most

promising of many of the young mines which are quietly working on, and tending to raise Flintshire to the position which it formerly occupied and pre-eminently deserves as a lead mining county.

MINING IN SCOTLAND.—We rejoice to find this branch of native industry is showing such animation in the "north country." A reference to our table of Swansea Ticketings will show a goodly array of figures from the Lochwinnoch Consols Mine and the West Kain, the former, as stated last week, commencing operations in January of this year; the latter only in July last. These sales are not merely ephemeral, as we are informed the first-named mine has other large parcels in transit and on the mine, which will be followed up in regular succession. The junior mine, too, has its returns on the way in monthly parcels, which will be regularly sustained. These mines have done much to foster a kindly feeling towards mine adventure in the city of Glasgow, where, we understand, no less than three new companies are in course of formation, one of which, with a capital of 1000 shares of 5l. each, was all subscribed in one day without a single advertisement being issued; the others, though not so rapidly completed, are in excellent odour with the public. We expect ere long to have to report regularly of the Scotch as of the Welsh, Irish, or Cornish mines. We are truly glad to see capitalists are turning their thoughts and attentions to our home productions instead of foreign countries, where the caprice of a faction, or the will of a potentate, may in a moment jeopardise their property, or injure them past remedy or appeal. We doubt not as exploration is made, and example set, very many hitherto neglected or untended sources of wealth will be developed, to the great benefit of the country at large, and of the immediate localities in particular; this has been the case to a remarkable extent in the village near the mines alluded to above, where the population and trade has evidenced a decided increase and marked change. The railway also has felt considerable difference in the traffic to this secluded hamlet, visitors almost daily coming on business or examination of the mines, besides the transmission of ores and materials, which, of course, will increase as the mines can be opened up. The West Kain is a private company of only eight gentlemen, but the Lochwinnoch is divided into 256 shares, under the Limited Liability Act. The shares are well held, and in demand, a few transactions have taken place at high premiums on the original cost of 5l. per share; these, of course, act as inducements to follow. We trust all will be successful—we would fain hope it, but all experience proves there are blanks as well as prizes in the lottery of mining as well as in the lottery of life itself, and we would counsel the young adventurer not to be out of heart or repine if his first attempts do not turn out equal to his ardent anticipations; we beg him to remember the excitement attendant on young mining adventure is extremely fascinating—it requires experience, caution, and perseverance to be successful in this business, perhaps more particularly than any branch of British industry, and when these elements are brought to bear success is all but certain.

THE SILVER VEIN MINING COMPANY.

Annexed is a circular which has been issued by the directors of the Silver Vein Mining Company, from which it will be seen that the company is in a position at length to make regular sales of silver ores. It appears that the intrinsic value of the silver and copper contained in the average of the ores is equal to about 16l. per ton, a price with which both directors and shareholders should be well satisfied, and which, with a judicious outlay of the capital of the company, ought to be made to yield exceedingly large returns—even larger than usually falls to the lot of mining enterprises. The circular takes as the basis of its figures 50 tons per month, and even at that, and the low net price of 8l. 12s. 6d. per ton, brings out a yearly profit equal to about 50 per cent. upon the paid-up capital. It must likewise be remembered that this mine is worked only to a depth of 12 fms., and the richer ores have been found at the lowest point; that there are only five small furnaces yet erected, which, if we are correctly informed, have only been partially used; that until the mine was actually proved the directors would not permit the outlay for adequate crushing power, but have been compelled to employ hand labour only. There is necessarily every reason to hope for, and expect, even much larger results. We know that there remains intact, uncalled up, 15s. per share of the capital, no call whatever, we believe, having as yet been made. Now, we cannot but ask the question—Can there be any reason why some at least of the remainder of the capital should not be made available for the further development of this interesting mine? And the only answer we can find is, that now the whole affair is placed beyond a doubt as regards the commercial profit to be obtained by its working, the directors would not only be justified, but are really bound, to use all the means at their disposal to bring out, as speedily as possible, the full capabilities of the mine and works. Economy and a care not to spend their capital waspraiseworthy, so long as a doubt could possibly have been entertained; but now that there can be none, delay or hesitation must be attributable to timidity or weakness, and it is to be hoped that neither exists in the councils of this undertaking. It appears perfectly within compass that in two years from this time, instead of 50 tons per month, 200 tons ought to be sold regularly, which, according to the very modest figures of the circular, would give cent. per cent. per annum.

There is another most important question to be determined—Whether the company ought to erect their own refinery? The value of the ores is stated to be about 16l., but the sale has been for net 8l. 12s., consequently the refiners' charges and profit is 7l. 8s. per ton. Now, it is quite clear that the profit out of this 7l. 8s. must equal 5l., taking the actual charge of smelting, &c., at the heavy sum of 2l. 8s. per ton. This profit alone, on even 50 tons per month, would be 3000l. per annum, and on the quantity we have indicated above—200 tons per month—would amount to 12,000l. per annum, or something like another cent. per cent. upon the capital. Can anyone in the face of these figures doubt as to the course which ought, and we hope will, be energetically pursued?

The circular, dated September 19, is as follows:—

"The directors are now in a position to speak with more certainty as to the price which will be realised from the ores. The first 20 tons sampled are proved to contain 54 ozs. 5 dwts. of fine silver, and 2 5/8 per cent. of copper to the ton of ore. This is worth about 16l. 16s. per ton. The highest offer made by the smelters is 8l. 12s. per ton, thus the returning charges and smelters' profit are taken at about 8l. per ton. This appears very high indeed, and it will be a question which the directors will submit to the shareholders at a meeting to be called so soon as the next 20 tons are sold, whether a small refinery should not be erected, so that the company may become their own smelters by which a considerable saving may be effected. This result is cause for consternation, as much as with even an average price of so low as 8l. 12s. per ton, a large profit may be obtained. Thus say only—

50 tons per month, at 8l. 12s., would give..... £430 0 0
The expenses of which would not exceed 3l. per ton, and much..... 150 0 0
Leaving a net profit of..... £280 0 0

Or 56 2/3 per cent. per annum on a capital of 7425l., and from only 50 tons per month. The second sampling, above referred to, is expected to take place in about a fortnight from the present time."

NORTH GREAT WORK MINE.

On Sept. 10, 11, and 13, a deputation from the committee, appointed on Aug. 20, together with the secretary, visited the mine, made a thorough inspection both underground and at surface, and the following is a combined report of their observations:—

TO THE SHAREHOLDERS.—We find the mine situated in the parishes of Breage and Germoe, near Helston, Cornwall, and is surrounded by the following mines:—On the east by the Old Goldolphin Mines; on the west by Halamanning and Croft Gohal; on the north by Wheal Gilbert; and on the south by Great Work Mine; all of which mines, from their well-known productiveness, need little remark. The set is very extensive, being 1 1/4 mile in length by one mile in width, containing five discovered east and west lodes, crossed at the centre of the set by a north and south lode, upon which Wheal Gilbert was productively worked on the one side, and about which very large returns were made in Great Work on the other side. This lode has been worked on the back by the old tinners through the entire length of the present company's grant to a depth of 20m 10 to 12 fms. It is anticipated by the manager and other practical miners who have inspected the mine that large deposits of tin will be found in connection with the junction of this lode with the east and west lodes before named. The mine to a depth of 45 fms. from surface is drained by an adit level commenced in the valley, and driven upwards of a mile in length, and underneath our present workings. The operations of the present company have been confined to the development of two lodes, named respectively the North lode and the South lode. The deepest point to which this lode has been worked is by the deep adit level, and it has also been explored for a considerable length by the shallow adit level, but the discoveries of tin made have not as yet yielded any very important results, although there is no doubt, judging from the appearances and size of the lode at the depth at present attained, that it will be equally as productive as the south lode a few fathoms deeper. The object of continuing the driving of the shallow adit level on the course of this lode is to arrive at the junction of the above-named cross lode. This point will be reached in the course of four months, and will so lay open the ground to a depth of 30 fms. to enable the company to explore the lode below the workings of the old tinners, in the bottom of which it is reported good courses of tin were left when the men were stopped by the influx of water. The shafts, levels, &c., on this lode are all in good order, both for ventilation and vigorous working. South lode: From this lode nearly the whole of the tin sold by the present company has been raised. The deepest level driving is the 10 below the deep adit, or 55 fms. from surface. In driving the shallow adit a small deposit of tin was found; underneath this, in the deep adit, a course of tin for about 16 fms. in length was laid open, from which about 1500l. worth of tin has been sold. The 10 is now being driven to get under this body of tin; and although the point is not reached by upwards of 25 fms., we have much pleasure in being able to state that the present end is producing tin to the value of 20l. per fathom. Should this continue to the point under which the lode was so productive in the level above, a rich and profitable mine will be at once laid open. The appearance and nature of the ground in the 10 end are exactly similar to those presented in connection with the tin raised above. A secure and good shaft is sunk from surface to within 5 fms. of the 10 fms. level, and about 10 fms. ahead of the present end, being in the best position possible for the economical and effectual working of the tin ground. A further depth of 10 fms., and also the 10 fms. level can be obtained, as the manager informs us, without the aid of steam-power. The different shafts, levels, &c., on this lode are in perfect working order, and suitable for all required purposes. There are extensive buildings on the mine, erected by the present company, consisting of smithy, storehouse, large counting-house, sampling-room, &c.; and the approaches to the mine, although requiring considerable outlay, have been properly constructed. On the dressing-floors all materials necessary for returning the tin to market are provided, and tin to the value of about 800l., and about 2 tons of good quality copper ore, are now on the mine. Judging from the position of the mine, being in the centre of the richest tin district in Cornwall, the productiveness of the lodes already discovered, and

the general features of the ground, we are led confidently to believe that a rich and lasting mine will be the result of a continuation of the present mode of working. From the very satisfactory manner in which we found everything conducted in connection with the mine, and the lucid explanations rendered by the manager (Capt. Joseph Vivian) and John Pope, the underground agent, we are convinced that the local management is in most able and trustworthy hands. In conclusion, we congratulate the shareholders on the present and future prospects of the mine, which, as we have endeavoured to explain, appears to us to be an exceedingly valuable property.

TIMOTHY HUGHES, MARK BRETT, T. E. W. THOMAS.

TRUTH'S ECHOES; OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market has been active all the week, and a considerable amount of business transacted. The settlement of shares dealt in for the "account" took place on Monday, which passed off with the usual deficiency of East Caradon shares.

Transactions have taken place in SOUTH FRANCES and EAST BASSETT shares at improved rates.—COPPER HILL, WHEAL SETON, WHEAL BASSETT, and WEST SETON shares have also changed hands.—STRAY PARK shares are a little firmer, and fair business doing.

—EAST CARBON BREA shares are in good request, and very scarce; the price has, consequently, considerably advanced, and the mine is reported to have improved very much.

—COOK'S KITCHEN shares continue in favour.—NORTH DOWNS shares, which were in good demand during the latter part of last week, and firm the early portion of the present week, have been considerably depressed, arising from a reported falling-off in the mine.

—NEW TRELLIGH and NORTH TRELLIGH shares have been in request at minimum rates, and several bargains in the latter taken place.—GREAT RETALLACK, EAST GRENVILLE, and UNITY shares have been in demand, and several bargains effected.

—GREAT WHEAL MARTHA shares have been largely dealt in during the week, but at lower rates. The decline has been attributed to the circulation of a paragraph, having an unfavourable tendency as regards the true financial position of the company. The report of a proposal to increase the number of shares from 15,000 to 20,000, for the purpose of raising additional capital, is positively denied by the board of directors, and has not the slightest foundation in truth; it is presumed to emanate from parties interested in depressing the price of shares, to cover their "bearing" propensities. Whether such be the case or not, it behoves the executive to exercise the most stringent measures in ascertaining the correctness of the reported misrepresentations, as well as placing before the public an authenticated statement of accounts, as some satisfaction to those who have purchased at the recent advanced price, as well as to such who are alarmed at the depression of their property. This appears to be an urgent duty of the administrative, who hold their trust for the security and benefit of shareholders generally.

—SOUTH CARADON shares have been sought for.—WEST CARADON shares have improved very much, and several transactions taken place.—EAST CARADON shares have been in good demand, especially for the settlement on Monday, when found rather scarce; they have since improved and receded, according to the caprice of the market, but have left off firm.

—MARKE VALLEY shares have not been quite so firm, there being more sellers at the present time.—LUDCOTT shares have been in good request at improved rates.—HERODSFOT and MARY ANN shares are firmer, and several transactions taken place at improved rates.

—TRELLAWY shares are more in request at low rates.—WHEAL WREY CONSOLS shares have been rather largely dealt in at lower prices than quoted.—WHEAL ARTHUR shares have considerably advanced, and a large number have changed hands during the week, consequent on the improved prospects of the mine.

—WHEAL EDWARDS shares are more in request; and from the generally improved prospects of the mine are likely to have a good advance.—HINGTON DOWNS shares are firm, and bid fair to maintain the improvement.—DRAKE WALKS and KELLY BRAY shares, although not very active, are being enquired for at minimum quotations.—WHEAL GRYLLS shares have been in good demand, and a large number changed hands at advanced rates, even in the face of an expected call of 1l. (made on Wednesday).—WENDRON CONSOLS, GREAT WHEAL FORTUNE, and DING DONG shares have been sought for at improved prices.—MARGARET, PROVIDENCE, and EAST PROVIDENCE shares have been in demand all the week at buyers' prices.—WHEAL HEARLE shares have been in request at improved rates, and a large number changed hands.—OLD TOLGUS shares are sought for, from the improved prospects of the mine.

At EAST CARADON, the 60 west, on the counter, is not quite so good as reported last week, being now worth 25l. per fm., and looking well for improvement; but the western end continues to look well, and is worth upwards of 25l. per fm. About 25 fms. behind the western end a change took place, and the lode was at that point calculated by the breadth carried, but a branch is found to have gone off, and is now being taken down, and worth full 18l. per fm., and still improving. This is an important addition to the western ground. The 50 east is worth full 30l. per fm., and looks well for further improvement. The parcel sold at Truro on Thursday realised 2259l. 2s. 6d., which will leave a profit in the month of nearly 1600l.—GRABROCK MOON and GOWA LEXA meetings are called for the 26th, when a dividend of 5s. may be expected in the form of a call of 2s. 6d. in the latter.—SORTHIDGE CONSOLS is represented to have improved a little in the 40 east, on the south part of the main lode, where it is worth 3 tons of good ore per fm.; the other places continue just the same.—LADY BERTHA has presented no alteration for some time past; the 40 east is looking to improve, and the same level west is producing a fair quantity of coarse ore, but at the present time it is looking less encouraging.—At WHEAL MARTHA the prospects continue of the same character as officially reported. The shaft is now down 12 fms. below the 40, at which point the next level is to commence, preparatory to which they will have to sink for the 40 where most productive, and its whole ground, from whence large quantities will be taken away at a low cost. They purpose sampling about 300 tons on the 27th, which is estimated to produce full 1200l., and they have on the floors and broken underground above 2000l. worth of copper ore.

HAWKMOOR is reported to be in fork, but no change has taken place. The lode in the back of the 25 is still worth 3 tons per fathom.—At WHEAL EDWARD the prospects continue highly encouraging, and there is very little doubt but that this mine will in a few months become a very profitable one. Large quantities of ore are being laid open, but it will require a little time to run the mine what it is fully expected to be a permanent paying one.—OKEIL TON continues to hold out much promise. The lode in the 80 and also in the back is worth 3 tons of ore per fathom respectively. The stops in the back of the 65 are worth 10 tons per fathom, and in the bottom of the 60 they are yielding 12 tons per fathom. The ore is of low produce, but likely to improve in quality as they go deeper.—EAST GUNNIS LAKE and SOUTH BEDFORD is represented as looking remarkably well. The 36 east, at South Bedford, is going through a fine course of ore, yielding full 6 tons per fathom. Gard's shaft is going down on a very promising lode, which is likely to become highly productive.

At the 12 east is looking more promising, and in some places the ground is easier. Excellent ore ground is opening out. The 85 west is reported worth 70l. per fathom; and the 100 and 110 are improved, the former worth 20l. per fathom, and the latter producing good stones of ore.

At KELLY BRAY they are looking more promising in the eastern part of the mine, where they have two or three places yielding fair quantities of ore; and there are other promising points to which attention is being directed, as good results are anticipated.

At NORTH WHEAL JANE the prospects continue highly encouraging; and should the lode in the 12 east hold down there is no doubt it will become a permanent and paying mine. The lode in the 20 is producing excellent work for tin, and looks well, not only to continue but improve. At Nine Stones the lode is opening up remarkably well, and daily improving.—At CORNBURIA they have intersected the lode in the cross-cut, and as far as seen is producing most excellent work for tin.—At NEW CROW HILL the lode in the 15, 35, and 55 is producing some good work for lead, and the new stamps are nearly ready for working. The prospects generally are very encouraging.

At NORTH HALLENBEAGLE the prospects are stated to be improving as they progress in clearing up the old workings. In cutting a pit at the 10 they have met with a very promising lode, 12 fms. wide, saving work. There are several lodes in the set, which, having been interested by the tin, are found productive, can be opened with very little cost when once cleared, so that the prospects are indicative of early profitable returns.—At EAST CARBON BREA they have a large and highly productive lode in the 40, and a good lode in the bottom of the 26, with greatly improved prospects in other places, which bid fair to become permanent and profitable.

At PENHALE MOOR general meeting a new committee was elected; this will, in all probability, remove the difficulties to a more energetic and efficient working of the mine. It is to be regretted that so many impediments should have been thrown in the way of developing the fair prospects represented in the mine. The operations at present are chiefly directed to the extension of the 30 east, with a view of meeting with two rich bunches of tin gone down from the 30; 1 ton 6 dwts. of black tin was sold on Saturday last, realising 93l. 17s. 9d., being, I believe, a new record.

GREAT WHEAL BEST is opening up remarkably well; the lode from the 80 to the 100 is producing immense quantities of ore from three places in that level; it is yielding full 12 tons per fm.—At GREAT RETALLACK, in driving the 45 east it is found more productive of lead, and presenting prospects of further improvement as they leave the shaft. They have commenced operating in the 35 for blende, which is being taken away at a low tribute.—At GARN CARADON the prospects continue of a very encouraging character, the ore ground improving as they progress. They are preparing for their first sampling.—Old TOLGUS UNITED is presenting generally more favourable appearances than for some time past. All the eastern ends have assumed a cheering aspect, especially the 32, which is more in advance than the other levels, and is now getting into ground more congenial for copper ore. Those conversant with the character of the ground entertain very sanguine hopes of an early and important change.

NORTH DOWNS has been inspected this week by a very intelligent and practical agent, whose report has had a very unfavourable and depressing tendency on the market value of the shares. The ore ground is represented as being rapidly taking away, and the 50 east, which was worth 30l. per fm., has fallen off from 20l. to 25l. per fm., and the several ends very poor at present. It is to be hoped that some favourable change will take place to enable the mine to keep up its samplings.—EAST PROVIDENCE is stated to possess very considerable and cheering prospects, which in all probability will be realised in a few months. The discoveries made in Providence, in the eastern ground, are of the highest importance, and their best end going east is now within 45 fms. of the boundary; the ground being easy for driving, is being explored at the rate of 4 fathoms per month. East Providence shaft is now down 16 fms. under the adit, where they are opening good ore ground.—EAST ROSEVALE continues to look very promising; they have a good lode in the east end, and also in the backs. In the bottom of the 43 the winze is worth 25l. per fm.—At WENDRON CONSOLS the prospects are as good as they have been for some time past, and it is stated that they will sell a larger quantity of tin this quarter than last; and from the advanced price of tin the balance will be increased.—At SITHNEY AND CARMEL, the prospects have improved in Sithney during the past few days. At Bounder's shaft, on Carnmel lode, they have more favourable indications, with excellent stones of tin coming in.

WHEAL GRYLLS: The most favourable accounts are being received from this mine, where they are opening out extensive and valuable tin. Georgia lode is proving a productive one. The several points of operation will average full 25l. per fathom, which can be taken away at a good profit, leaving long runs of rich tribute ground, which will let at a low price. The mine, upon the whole, is looking remarkably well for a permanent dividend-paying one.

JAMES LANE.

From Mr. W. LEELEA: The improvement in monetary affairs has made active progress during the past week, the rapid increase of the resources of the Bank of England having enabled the directors to reduce their minimum rate of discount to 3 1/2 per cent., while the actual value of accommodation in the open market has scarcely exceeded 3 per cent. With the prevailing plethora of capital, it may safely be predicted that a steady recovery will be experienced in almost all departments of business, especially towards the end of the year, when extensive preparations will, no doubt, be commenced for the revival of enterprise, which it is only natural to assume will speedily follow. Investments of various descriptions are already more sought after, and the demand for all probability, be largely increased now that the joint-stock banks have lowered the interest they allow on deposit accounts to a point likely to induce the depositors to withdraw their balances, in order to employ them in the purchase of securities yielding a more remunerative return. In looking out for a productive channel for the investment of available means, the public will do well at the present moment to investigate the advantages of mining shares, which now, perhaps more than ever, possess attractions far superior to those offered by railways, banks, or guaranteed stocks. If any extensive revival of business in the Mining Share Market cannot as yet be reported, it is gratifying to notice that a marked improvement has taken place in the

character of the current transactions. There is a visible diminution of reckless speculation, dealings for the rise or fall in connection with the bi-monthly account having to a large extent given place to bona fide sales and purchases, consequent upon an accession of interest from various parts of the country. Among the mines which have been most in favour during the week are Ding Dong, Providence, Trelyon Consols, Marke Valley, Margery, Wheal Hoar, East Caradon, East Damsel, Rosewarne Consols, North Basset, East Basset, Wheal Grylls, Bryn Gwlog, and West Caradon.

Mr. John Little, of Redruth, auctioneer, sold at the Auction Mart, Wheal Anna tin and copper mine, in St. Hilary, with valuable plant, for 6500l. One hundred and sixty shares in Budnick Consols were sold by auction at the Royal Hotel, Truro, on Wednesday last, and realised from 1s. 8d. to 3s. 6d. per share. Fifty shares were afterwards sold at 5s. per share.—West Briton.

STEALING ORES.—Three miners—Richard Peters and William Notwell, of Calington, and William Tiller, of St. Ives—have been committed for trial for stealing silver ore from Wheal Ludcott. Some of the ore was found in Tiller's garden, buried under some brocoli plants, but Inspector Marshall, who soon began his exploring operation, exhumed about a 1/2 cwt. of rich silver ore, worth from 3s. to 3s. 6d. per oz. When the inspector searched the premises of Peters, he found a neat little assaying furnace at one end of a carpenter's shop, together with the necessary apparatus for carrying out the robbery.

FIVE PERSONS KILLED BY A CHAIN BREAKING.—One of the most serious accidents which ever occurred in the Shropshire mining district took place at one of the Lilleshall Company's stone pits, at Wrockwardine-wode. It appears that five miners had completed their week's labour, and were being drawn up the shaft, when within six yards of the top the chain by which they were suspended broke, and the whole of the unfortunate fellows were precipitated to the bottom, falling a depth of about 80 yards, death instantly ensuing. From the evidence adduced at the inquest, it appeared clear the chain had been much neglected, no one appearing to think it his duty to look after it. The jury returned a verdict of "Accidental Death," accompanying it by a recommendation that the company in future should employ some responsible person to look after those things. Mr. Jones said that had already been done.

MINE ACCIDENT.—At East Caradon Mine, William Vague has been killed by the premature explosion of a hole, while preparing a blast. Verdict, "Accidental Death."

HOLLOWAY'S OINTMENT AND PILLS—BOUGHT EXPERIENCE.—To suffer from the racking pains of rheumatism and gout these soothing remedies will prove a perfect godsend. They lessen the inflammation, and remove the exquisite sensibility of the nerves, when pain gradually ceases. The ointment disperses all blotches or pimples which can spot the fairest skin, and renders it soft and silky. The pills root out all daily life, and make it miserable. They obtain and maintain the most robust health. Holloway's ointment and pills have been long commended for curing all sorts of sores, ulcers, inflammations, dyspeptic symptoms, flatulency, heartburn, and constipation. They constitute a complete materia medica in themselves.

Government School of Mines, Jermyn Street.

GOVERNMENT SCHOOL OF MINES, JERMYN STREET, LONDON.

DIRECTOR—SIR RODRICK L. MURCHISON, D.C.L., &c.
The prospectus for the Session, commencing on the 7th October next, will be sent on application to the Registrar. The Courses of Instruction embrace Chemistry, by Dr. Hofmann; Physics, by Prof. Tyndall; Natural History, by Prof. Huxley; Geology, by Prof. Ramsay; Mineralogy and Mining, by Mr. Warrington Smyth; Metallurgy, by Dr. Percy; and Applied Mechanics, by Prof. Willis. TRENHAM REEKS, Registrar.

MINERALOGY—KING'S COLLEGE, LONDON.

Prof. TENNANT, F.R.S., will COMMENCE a COURSE of LECTURES on MINERALOGY, with a view to FACILITATE the STUDY of GEOLOGY and of the APPLICATION of MINERAL SUBSTANCES in the ARTS. The lectures will begin on Friday morning, October 4th, at Nine o'clock. They will be continued on each succeeding Wednesday and Friday at the same hour. Fee, £2 2s.
R. W. JELF, D.D., Principal.

SOUTH-EASTERN RAILWAY—CONTRACT FOR THE SUPPLY OF STORES, FROM 30th SEPTEMBER, 1861, to 31st MARCH, 1862.

The Directors are PREPARED to RECEIVE TENDERS for the SUPPLY of the UNDERMENTIONED STORES, viz.:—

- 1.—TURPENTINE, &c.
- 2.—IRON, AXLES, TYRES, FORGINGS, &c.
- 3.—GENERAL IRONMONGERY, TOOLS.
- 4.—FILES, STEEL, SPRINGS, &c.
- 5.—SHEET BRASS, BRASS AND COPPER TUBES, FINISHED BRASS WORK, &c.
- 6.—TIN, TIN-WORK, LEAD, ZINC, AND OTHER METALS.
- 7.—GLASS, LAMPS, LAMP MATERIALS.
- 8.—VARNISH, PAINT, DRY-SALT, &c.
- 9.—ROPE, CANVAS, BAGS, FELT, &c.
- 10.—COACH TRIMMINGS, CARPETING, CLOTH, HORSE-HAIR, TOWELLING, &c.
- 11.—LEATHER, ROPE PIPES, STRAPS, &c.
- 12.—BRUSHES, BROOMS, MATS, &c.
- 13.—WOODWORK.
- 14.—SUNDRIES.

Specifications and forms of tender may be had on application in writing to the storekeeper, London-bridge Terminus.

Forms of tender for each contract are printed separately, and parties applying should state the particular contract for which they propose to tender.

Tenders may be inspected on and after the 18th inst., at the Stores Office, Bricklayers' Arms Station, and any further information required may be obtained at the Storekeeper's Office, London-bridge Terminus.

Tenders to be returned on or before the 28th inst., endorsed "Tender for Stores," addressed to the Secretary, London-bridge Terminus.

S. SMILES, Sec.

PORTSEA ISLAND GAS LIGHT COMPANY—TO BUILDERS, CONTRACTORS, AND OTHERS.

The Directors of the Portsea Island Gas Light Company are DESIROUS of RECEIVING TENDERS for MAKING a BRICK GAS-HOLDER TANK, 160 ft. diameter.

Copies of the drawings and specifications may be obtained on payment of one guinea, on application to Mr. F. J. EVANS, Gas Works, Horseferry-road, Westminster, on and after Wednesday, the 18th inst., and of whom all particulars may be obtained.

Tenders to be sent to the company's office, Portsea, on or before Wednesday, the 9th of October, 1861.

The directors do not bind themselves to accept the lowest tender.

By order, JAS. F. ABSALOM, Clerk to the Company.

Portsea, September 12, 1861.

PORTSEA ISLAND GAS LIGHT COMPANY—TO GAS-HOLDER MAKERS.

The Directors of the Portsea Island Gas Light Company are DESIROUS of RECEIVING TENDERS for the ERECTION of a SINGLE-LIFT GAS-HOLDER, 158 ft. diameter and 30 ft. 6 in. deep, with the necessary columns, girders, guides, &c.

Copies of the drawings and specifications may be obtained on payment of one guinea, on application to Mr. F. J. EVANS, Gas Works, Horseferry-road, Westminster, on and after Wednesday, the 16th inst., and of whom all particulars may be obtained.

Tenders to be sent to the company's office, Portsea, on or before Wednesday, the 9th of October, 1861.

The directors do not bind themselves to accept the lowest tender.

By order, JAS. F. ABSALOM, Clerk to the Company.

Portsea, September 12, 1861.

THE ASPHALTUM COMPANY (LIMITED) MANUFACTURERS OF THE LUNAR PARAFFIN OIL.

WORKS, MILWALL, POPLAR, E.
OFFICES, 34, GREAT WINCHESTER STREET, LONDON, E.C.

TO CAPITALISTS IN CONNECTION WITH THE COAL AND IRON TRADES.—WANTED, by an IRON or COALMASTER, a PARTNER or PARTNERS, who can furnish about £10,000 by instalments, and keep £5000 to be brought in, if required, within a period of two or three years, making together £15,000, for a MONTHLY output of a BIG IRONWORK and EXTENSIVE COALWORKS IN WALES, which are capable of an immediate return, and with a little further outlay (part of the capital now required) will make a profit exceeding £20,000 per annum fixed, certain, and free from risks.

The property is a most eligible one, on the South Wales Railway, near the best Welsh ports, within an 8s. rate of London, and where large pig and foundry pig of the best quality, as well as tin-plate pig-iron, can be made at an average cost of 35s. per ton, and coal put in the railway wagons on the rail at 3s. per ton, with most extensive markets open. The property is extensive, and contains abundance of the best coal, house, steam, iron making, and coking, as well as clau, claystone, and hematite ore, of which there is a fine field, known as the Llantrisant Mine. The railway passes through the property.—Apply to "E. D." Mining Journal office, 26, Fleet-street, London, E.C.

LIANES LEAD MINING COMPANY.—Notice is hereby given,

that, in conformity with the Deed of Settlement, the HALF-YEARLY GENERAL MEETING of the shareholders in this company will be HELD at the office, 5, Queen-street-place, Upper-Thames-street, E.C., on THURSDAY, the 26th inst., at One o'clock P.M., to receive the accounts, balance-sheet, and reports of directors and auditors for the half-year ending 30th June last, and for the general purposes, as authorised by the Deed of Settlement.

London, September 12, 1861.

TAMAR SILVER-LEAD MINING COMPANY.—Notice is hereby given,

that the ANNUAL GENERAL MEETING of shareholders will be HELD at the company's office, No. 5, Adam's-court, Old Broad-street, London, on MONDAY, the 7th day of October next, at Two o'clock precisely.

By order of the Board, W. J. DUNSFORD.

West-wheel Providence Mine.—Notice is hereby given,

that the NEXT QUARTERLY MEETING of the shareholders will be HELD at the office, on WEDNESDAY, the 25th inst., at Twelve o'clock precisely.

T. W. ROBINSON, Purser.

7, Tokenhouse-yard, London, E.C., September 14, 1861.

WHEAL UNY MINE.—Notice is hereby given, that the NEXT QUARTERLY MEETING of the shareholders will be HELD at the office, on WEDNESDAY, the 25th inst. next, at One o'clock precisely.

7, Tokenhouse-yard, E.C., September 14, 1861.

ZAMORA TIN MINING COMPANY (LIMITED).
See prospectus in the Times of 13th September, 1861.
Notice is hereby given, that NO APPLICATIONS FOR SHARES will be RECEIVED after WEDNESDAY, the 25th inst.
HENRY HAYMEN, Chairman,
JOHN E. DAWSON, Sec.
Temporary Offices, 9, Broad-street-buildings, City.

THE CENTRAL SNAILBEACH MINING COMPANY (LIMITED).
Capital £10,000, in 10,000 shares of £1 each.

Deposit, 2s. 6d. per share, payable at Messrs. Roake and Co.'s, bankers, Shrewsbury, upon application, which will be returned if no allotment be made to the applicant.
Projected to work most valuable veins of lead ore under Hogstow Hall Farm, in extent 295 acres, actually adjoining the western boundary of the renowned Snailbeach Lead Mine, two miles from Ministry Railway station, Shropshire.
For detailed prospectus, see Mining Journal of July 27, p. 479, and of 3d Aug., p. 502; and for a copy of Messrs. Phillips and Darlington's report, since which the Strong vein in this set has been identified by Messrs. John Evans and David Davies, two of the present resident Snailbeach agents, as none other than the main lode of their celebrated mine, see Mining Journal of 24th August.
The promoters desire the strictest investigation.
Prospectuses, copies of the reports, &c., can be had from Messrs. PHILLIPS and DARLINGTON, 26, Gresham-street, London, who will afford every information; or from the undersigned, to whom all applications for the remaining shares are to be promptly made.
SAM. HARLEY KOUGH,
Shrewsbury and Church Street, Solicitor to the Promoters.

THE CHESTERFIELD AND MIDLAND SILKSTONE COLLIERY COMPANY (LIMITED).
Capital £40,000, in 8000 shares of £5 each (with power to increase).

DIRECTORS.
J. SAY SPARKES, Esq., H.E.I.C.S., Brunswick Villas, St. John's Wood, London, W.
WILLIAM MITCHELL, Esq., 54, Gracechurch-street, London, E.C.
HENRY BROWN RIGG, Esq., 33, Lime-street, London, E.C.
GEORGE BROCKLEBANK, Esq., Gloucester-place, Greenwich.
GEORGE SENIOR, Esq., Coalowner, Barnsley.
Major CHARLES SANDERS, The Ingrams, Thirsk.
(With power to add to their number.)
MANAGING DIRECTOR—John Say Sparkes, Esq., H.E.I.C.S.
BANKERS—London and County Joint Stock, Lombard-street, London, E.C.
SOLICITORS—Messrs. Courtenay and Croome, 9, Gracechurch-street, London, E.C.
BROKER—Charles W. Marten, Esq., 26, Throgmorton-street, London, E.C.
CONSULTING COLLIERY ENGINEERS—Messrs. Brown and Jeffcock, Sheffield and Barnsley.
SECRETARY AND ENGINEER—James Wright, Esq., C.E.
OFFICES—LONDON, 42, BRIDGE STREET, BLACKFRIARS.

PROSPECTUS.
This company is incorporated for the purpose of establishing a colliery, and raising the well-known Silkstone coal upon the estates of the Dukes of Devonshire and Rutland, at Sheepbridge, in the vicinity of Chesterfield.
The moderate depth of this bed of coal, which can be reached and worked in about four months, the very small cost at which it can be raised, the first-rate quality of the coal always commanding the highest prices, and its contiguity to the Midland Railway, render this field one of the most valuable coal properties in England.
The existence of the coal, and the cheap rate at which it can be obtained, as proved by borings and shafts already sunk both in and around the field, entirely remove this undertaking from anything like risk or speculation, and thus afford an opportunity seldom met with for moderate capitalists to invest in one of the most profitable and important productions in the kingdom.
From accurate surveys made by the most eminent mineral engineers, the directors can with confidence predict that the returns upon the capital will, at the very least, be 21 per cent., while the facilities for winning the coal are such as to render it almost a certainty that dividends will be paid within twelve months from the commencement of the works.
The coal is the Silkstone, well known as the best suited for domestic use, and for which the demand both in the locality of the works, as well as in London, is almost unlimited, and at the highest prices.
The shafts will be sunk in proximity with the Midland Railway, communicating and having extensive sidings therewith, thus enabling the company to forward the coal by rail from the pit's mouth to any town or port in the country.
The coal field comprises about 600 acres, and is estimated to contain nearly 4,000,000 tons of coals. The lease is for a term of 36 years, and held at a very moderate rental of £210 per acre, of which a minimum of about 17 acres per year must be removed; hence the company has no reason to pay as bonus for the lease, as is usually the case; and no portion of the capital will be applied to any purpose, save the construction of the works, and the prosecution of the business of the company.
The lessors have also bound themselves to construct and keep in repair for a moderate sum the branch line of rail to join the pits with the Midland Railway, and to provide all the requisite sidings thereto; also to convey thither all the company's coal at a fixed charge of 6d. per ton haulage.
It is a well-known fact, that some collieries when the engineering operations are scientifically conducted, from 800 to 1000 tons per day are continuously raised. The arrangements of the proposed company will easily produce that quantity; but taking the low daily average of 700 tons, and estimating 290 working days, there would be raised 203,000 tons annually. In order, however, to be from any exaggeration, the calculations of profit have been based upon 175,000 tons only. From the reports given by different mineral surveyors, some of which are appended hereto, and taking the highest of their estimates, it will be seen that the coal can be raised and put into the railway wagons at a cost not exceeding 4s. 6d. per ton (including all royalties, expense of management, and a fair allowance for the redemption of capital expended in opening the colliery). After deducting these from the lowest prices now ruling in the neighbourhood, there is left a clear average profit of 1s. per ton, or an annual income of £28750, being upwards of 22 per cent. on the total capital of £40,000, even should the whole be required.
It should also be observed that the foregoing estimates do not include the profit to be derived from coking the refuse coal, or taking advantage of any more favourable market than can be commanded at the pit's mouth, although the directors feel great confidence that from the facilities they will possess of supplying the London, Sheffield, and French markets much greater profits will be realised.
Although the directors have fixed the capital nominally at £40,000, it is almost certain that little over two-thirds of that amount will ever be required; hence it is thought probable that the total calls on each share will not exceed £3 10s. at most; these will be asked for in 10s. per share on application, £1 on allotment, and the remainder in calls of £1 each as required; and in no case will the calls be less than intervals than three months.
A considerable amount of the capital being already subscribed, as soon as the directors think the requisite number of shares applied for, they will commence the works; at the same time, unless at least one half of the capital be subscribed, all deposits will be returned in full.
The company being completely registered with limited liability, no shareholder can, under any circumstances, be made responsible for a greater amount than that unpaid upon the shares for which he subscribes. No payment, either in shares or money, will be given to the projectors for promoting the company.
Application for the remaining shares to be made in the annexed form, to the bankers, brokers, or at the company's office, 42, Bridge-street, Blackfriars, London, E.C.

Extract from the Report furnished by the eminent Colliery Engineers, Messrs. Brown and Jeffcock, of Sheffield and Barnsley, who have under their superintendence the principal large collieries in South Yorkshire.

GENTLEMEN.—Having carefully examined the estate, and made a very full investigation of the nature of the project, we are enabled to report that in our opinion a very favourable opportunity is presented of opening out a large and profitable colliery. Without going fully into details, which we can give, if desired, upon a future occasion, we beg to state that the seam of coal is the Silkstone, or Black shale, as well known in the London market; and there is every reason to believe it will be found of good quality. The thickness, as proved by borings near the site which will be the best for the winning is 5 feet. We estimate the cost of opening the colliery here at £12,000, in case there is not a large quantity of water met with (and which we do not apprehend); should, however, much water be found, it will necessitate the employment of a larger engine and pumps, and, perhaps, entail an additional cost of £2000 or £3000. The above estimates are exclusive of the cost of constructing the railway and sidings, and of erecting coke ovens, if found desirable to do so. The quantity of coal to be raised should not be less than from 100,000 to 150,000 tons per annum, and we estimate the cost of working, inclusive of interest upon capital, at 6s. 6d. per ton. We have made enquiries as to the average price for the coal in the Midland Railway sidings, and we have ascertained that the sale price will not be less than 5s. 6d. per ton, thus leaving the profit at least 1s. per ton, which upon 150,000 tons would be £7500, or 40 per cent. upon an outlay of £18,500. This is supposing the coal to be all sold; but the small coal would probably be more advantageously made into coke. The cost of erecting 100 coke ovens, with apparatus for washing the small coal, would be from £3000 to £4000; this outlay would, no doubt, be compensated for by the increased price obtained for the coke beyond the value of the small coal from which it would be made.

BROWN AND JEFFCOCK, Civil and Mining Engineers.
To the Directors of the Chesterfield and Midland Colliery Company.

Extract from the Report of THOMAS HARRISON, Esq., Colliery Engineer, Barnsley (a gentleman largely connected with the Yorkshire Collieries).

GENTLEMEN.—The field consists of about 600 acres; the coal is at a moderate depth, and is of first-rate quality; the price, £210, is a fair one, and the vicinity to the Midland Railway are advantages which, in my opinion, render it one of the most desirable and valuable in the country, and one which will yield very large returns, if proper capital and management be applied. My estimate of the costs is as follows:—
Sinking three pits, with engine, machinery, and all ne- £2930 0 0
cessary buildings, appliances, plant, and stock 3500 0 0
Cost of railway to pits 2500 0 0
One hundred coke ovens, at £25 each 2500 0 0 = £11,930 0 0
Say in all £16,000.

The above plant will be sufficient to raise at least 150,000 tons annually. I estimate the cost of obtaining the coals, including all labour, agency, interest, depreciation of capital, haulage, and royalty, at 4s. 3d. per ton.
150,000 tons at 5s. 7d. (the average selling price), if coke be made of £41,875 0 0
The small coal 31,875 0 0
Deduct cost of obtaining same, at 4s. 3d. 31,875 0 0
Leaving a profit of £10,000 0 0
Or above 66 per cent. of the capital used.

THOMAS HARRISON.
FORM OF APPLICATION FOR SHARES.
To the Directors of the Chesterfield and Midland Colliery Company (Limited).
GENTLEMEN.—I hereby request you to allot me shares in the above company; and I hereby agree to accept such shares, or any less number than you may be pleased to allot me, subject to the company's Articles of Association.
Dated this day of 1861. Name Address

NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS, 16, OZZELL STREET NORTH, BIRMINGHAM.
STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—
REFINED METALLIC NICKEL. OXIDE OF COBALT. [WIRE, &c.]
REFINED METALLIC BISMUTH. GERMAN SILVER—IN INGOTS, SHEET
NICKEL AND COBALT ORES PURCHASED.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

In the Causes of STEPHENS v. SAMUEL AND ANOTHER. SAME v. PENALUNA AND ANOTHER.

IN RE SOUTH PROVIDENCE MINE.

TO BE SOLD, pursuant to two several Orders made in the above-mentioned Causes, and dated respectively the 8th and 23d days of February last, BY PUBLIC AUCTION, at the Registrar's office, Truro, on Wednesday, the 25th day of September inst., at Twelve o'clock at noon precisely—
5 (1004th) SHARES of the defendant Alfred Samuel.
5 (1004th) SHARES of the defendant Henry Weeks.
50 (1004th) SHARES of the defendant Adolphus Jenkins Penaluna; and
50 (1004th) SHARES standing in the name of the defendant Mary Penaluna.
Of and in the said MINE. JOSEPH ROBERTS, Truro.
(For Messrs. Rogers and Son, Plaintiff's Solicitors, Helston).
Dated Registrar's Office, Truro, September 11, 1861.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

In the Cause of PAINTER v. CHAPMAN AND OTHERS.

IN RE GREAT WHEEL ALFRED MINE.

TO BE SOLD, pursuant to two several Orders made in the above-mentioned Cause, and dated respectively the 18th day of May and the 1st day of July last, BY PUBLIC AUCTION, at the Registrar's office, Truro, on Wednesday, the 25th day of September inst., at Twelve o'clock at noon precisely—
20 (512th) SHARES of the defendant Richard Chapman; and
80 (512th) SHARES of the defendant Thomas Torkington.
Of and in the said MINE. JOSEPH ROBERTS, Truro.
(For R. W. Childs, Plaintiff's Solicitor, 25, Coleman-street, London).
Dated Registrar's Office, Truro, September 11, 1861.

MESSRS. FISHER AND SON WILL SELL, BY AUCTION,

at the house of Mr. Cork, the Swan Hotel, in Bolton-le-Moors, in the county of Lancashire, on Wednesday, the 25th day of September, 1861, at Six o'clock in the evening, subject to such conditions as shall be then produced, the EXTENSIVE, VALUABLE, and WELL ESTABLISHED ENGINEERING, IRON FOUNDRY, and MILL-WRIGHT WORKS, known as the UNION FOUNDRY, in BOLTON-LE-MOORS, in the county of LANCASTER.
The land occupied by these works is freehold of inheritance, and contains nearly 4 statute acres, situate in the centre of the town of Bolton, is bounded on the east, south, and part of the north sides by wide and excellent streets, and the London and North-Western Railway extends along and adjoins to the whole of the west side thereof, and communicates with lines of railway of similar gauge laid down through the works.
The BUILDINGS are in good condition, and the works are laid out and adapted throughout to the present requirements of trade.
Several of the WORKSHOPS have been recently entirely rebuilt, and the establishment and working plant have been greatly improved and remodelled during the last few years.
The BUILDINGS comprise large erecting, boring, planing, turning, fitting, and other shops; loam, green sand and brass foundries, boiler shops, forge, smithies, pattern rooms, &c.
The COUNTING-HOUSES and DRAWING OFFICES are large, commodious, well built, of recent erection, and replete with all necessary fixtures, and office furniture and apparatus.
The MANAGER'S HOUSE (adjoining part of the north side of the works) contains a spacious hall, two parlours, two kitchens, five bedrooms, and other conveniences; there are two houses for workmen, and another house for the watch-keeper.
The OUTHOUSING comprises a coach-house, saddle-house, stabling for 12 horses, and all other requisite out-buildings and appurtenances.
The WORKING PLANT consists of FOUR STEAM ENGINES and BOILERS for driving saws, with turning lathes, planing, boring, slotting, screwing, drilling, grooving, and wheel-cutting machines, cranes, cupolas, moulding boxes, boiler-making machines, and tools, fans, smiths' hearths, weighing machines, luries, gas, steam, and water pipes, railways, and all other requisite machinery, tools, implements, and utensils required in a large engineering and millwright establishment.
The PATTERNS include above 1100 of spur, mitre, and bevel wheels, a large assortment of stationary, portable, and marine engines, water-wheels, hydraulic presses, dredging machines, gas apparatus, cranes, bridges, sugar mills, saw mills, pulleys, and general millwork, bleachers, printers, colliery, and other work connected with the requirements of the manufacturing businesses of the district.
The WORKS are adapted for the employment of from 600 to 800 men, and have been in existence above 60 years.
The property may be viewed on application to JOHN HOWARD, Esq., on the premises, and further particulars may be obtained from him, and on application to Messrs. ROBERTSON and ARMISTEAD, solicitors, Bolton, at whose offices a plan of the premises may be seen.

SALE BY AUCTION OF MINE MATERIALS, AT WHEEL EMILY, IN GWITHIAN, NEAR CAMBORNE.

MR. T. H. EDWARDS WILL SELL, BY AUCTION, on Wednesday, the 25th inst., at Ten o'clock, at WHEEL EMILY, in Gwithian, near Camborne, a 26 in. ENGINE, 10 ft. stroke, and BOILER of 18 tons; 30 ft. WATER WHEEL, 2½ ft. breast, with crusher and winding gear attached; capstan and shears, a general assortment of very good pitwork, whim rope, capstan and whim chains, and numerous other articles mentioned in handbills.
September 9, 1861. T. H. EDWARDS, Auctioneer, Helston.

SHARES IN THE NORTH WHEEL BASSET COPPER AND TIN MINE, CORNWALL.

MR. MARSH has received instructions to include in his NEXT MONTHLY PERIODICAL SALE OF REVERSIONS, POLICIES, &c., appointed to take place at the Mart, on Thursday, October 3, at One o'clock punctually, in Four Lots, without reserve, ONE HUNDRED SHARES (£1 17s. per share called and paid) in the NORTH WHEEL BASSET COPPER AND TIN MINE, CORNWALL.
Particulars may be obtained at the Mart; of Messrs. KINGSFORD and DONMAN, solicitors, No. 23, Essex-street, Strand; Messrs. SMITH and TUCKER, solicitors, Croome's Hill, Greenwick, Messrs. BROS and TWEEDIE, solicitors, 6, Ely-place, Holborn; and at Mr. MARSH's offices, 2, Charlotte-row, Mansion House, London.

A MOIETY OF CHANTER AND ANXAN'S PATENT FIRE-BARS AND SMOKE-PREVENTING APPARATUS, by direction of the Executrix of the late John Chantier, joint patentee.

MR. MARSH has received instructions to SELL, BY AUCTION, at the Mart, on Thursday, October 3, at One o'clock precisely, the MOIETY of the late John Chantier in FIVE PATENT FIRE-BARS, and BELGIAN, and IMPROVED RECIPROCATING FIRE-BARS FOR MARINE, STATIONARY, and LOCOMOTIVE BOILERS, and all MANUFACTURING PURPOSES.

The above patents, perfected at great cost, have been very extensively patronised and used by the British Government, also on the Continent, and are daily becoming more appreciated by the manufacturing interests of this country, the late joint proprietor having for some years past realised a large annual income from his patents for fire-bars and smoke-consuming apparatus.

Particulars of sale may be obtained at the Mart; of Messrs. CARTER and CHANTER, solicitors, Barnstaple, Devon; of Mr. DAVID ANXAN, patent fire-bar, office, 38a, High street, Bow; and at Mr. MARSH's offices, No. 2, Charlotte-row, Mansion House.

SALE OF VALUABLE STONE QUARRIES, IN THE FOREST OF DEAN.

MR. JAMES KARN WILL SELL, BY AUCTION, at the Bear Six o'clock in the evening, the following VALUABLE FREEHOLD STONE QUARRIES, situated in the FOREST OF DEAN, viz:—
ALSO, ONE QUARRY situate at GOSTY KNOLL, numbered 83, bounded as shown on Plan A, annexed to the said Award, and in length 60 yards.
ALSO, ONE QUARRY situate at DARK HILL, numbered 4, bounded as shown on Plan A, annexed to the said Award, and in length 40 yards.
ALSO, ONE QUARRY situate at DARK HILL, numbered 6, bounded as shown on the said Plan A, in length 20 yards.
ALSO, ONE QUARRY situate at MERRY HOLE, numbered 68, bounded as shown on the said Plan C, and in length 40 yards.
ALSO, ONE QUARRY situate at MORGAN'S COTE, numbered 143, bounded as shown on Plan L, annexed to the said Award, and in length 20 yards.
ALSO, the following LEASEHOLD STONE QUARRIES, viz:—
ONE QUARRY situate at FETTER HILL, numbered 346 in the lease book of the Deputy-Surveyor of the Forest of Dean, in length 20 yards.
ALSO, TWO QUARRIES situate at BARNEDE, numbered respectively 357 and 358 in the said lease book, No. 357 being 60 yards, and 358, 50 yards in length.
Also, all the PLANT and MACHINERY belonging to the heretofore mentioned quarries.
Portions of the quarries offered for sale are now in full work.
The quarries numbered 346, 357, and 358 are held of the Crown in manner as follows:—No. 346 for the residue of a term of 21 years, created by an Indenture dated the 2d day of February, 1859; and 357 and 358 for the residue of a term of 21 years, created by an Indenture dated the 14th day of June, 1859.
For further particulars, apply to Messrs. CARTER and GOOLD, solicitors, Newnham.

TO COAL AND IRONSTONE MASTERS AND CAPITALISTS.
VALUABLE LEASEHOLD MINES OF COAL AND IRONSTONE.

MR. SAMUEL ROWLEY has been honoured by the Chesterton Mining Company, in consequence of the death of one of the Proprietors, to OFFER FOR SALE, BY AUCTION, on Thursday, the 17th day of October next, at the Redoubt Hotel, Newcastle-under-Lyme, in the county of Stafford, at Three o'clock in the afternoon precisely, and subject to conditions to be then produced, ALL THE ESTATE AND INTEREST OF THE CHESTERTON MINING COMPANY, of and in all those VALUABLE MINES, BEDS, and SEAMS OF COAL, IRONSTONE, CLAY, and MARL lying and being within or under certain lands situate at Chesterton, in the parish of Wollington, in the county of Stafford, comprising 60 statute acres, or thereabouts.
The mines comprise the Blackband, Red Shag, and Red Mine Ironstone, the Bassey Mine, the Peacock, the Spencer, the Gabbins Mine, the Great Row and Cannel Mine Coals.
The mines and works are in full operation, and are held under a lease for a term of 21 years, of which eleven years and nine months are unexpired.
The terms of the lease are of the most favourable and advantageous nature for the lessees, who have power to terminate the term at their option.
The whole of the MACHINERY and PLANT belonging to the colliery, which are both modern and substantial, and in good order and repair, will be included in the sale.
The mines are very conveniently situated, and afford to a man of enterprise an opportunity for profitable investment which rarely presents itself.
For further particulars, apply at the Chesterton Mining Company's offices, at Tunstall, Staffordshire; or to Messrs. LEWELLYNS and HUDRICH, solicitors, Tunstall; and Mr. SHERNARD, solicitor, Talk-on-the-hill.—Tunstall, September 10, 1861.

FLINTSHIRE.
SHARES in that VALUABLE and PROFITABLE LEAD MINE, called ORSEDD, A HIGH PRESSURE STEAM ENGINE, COMPLETE.

TO BE SOLD, BY AUCTION, at the King's Head Hotel, in the town of Holywell, on Thursday, the 26th day of September inst., at Three o'clock in the afternoon precisely, subject to conditions to be then produced.

NINE (64ths) SHARES of and in the well-known and RICH LEAD MINE, called ORSEDD MINE, in the parish of WHITFORD, in the county of FLINT, and situated on the south-west side of the turnpike-road leading from Holywell to St. Asaph.
This mine is now in full working order, and yields large quantities of lead ore, as may be seen from the ticketings of the sales at Holywell. Several valuable discoveries have been made during the last three years, which produced large profits to the shareholders, and is still in a prosperous state, and the appearances are daily improving.
Also, an excellent HIGH PRESSURE STEAM ENGINE, complete. Diameter of cylinder, 16 in.; stroke, 3 ft. 6 in., and equal to new, having recently undergone thorough repairs, and not been worked since. The engine is constructed on the most approved principle; it comprises cast-iron bed plate, frame and entablature, parallel motion, slide valve, fly-wheel, shaft, and crank. It may be seen at the Mostyn Foundry, near Holywell, at any time previous to the day of sale.
For further particulars, applications to be made to Mr. WILLIAMSON, solicitor, Holywell.

DEVON.
WHEEL FRANCO MINE, NEAR THE HORRABRIDGE STATION OF THE TAVISTOCK RAILWAY.

VALUABLE MINING SETS, PLANT, AND MACHINERY FOR SALE.
MESSRS. SKARDON AND SONS WILL SELL, BY AUCTION, on Tuesday, the 1st day of October, 1861, the undermentioned VALUABLE MACHINERY on the above mine, viz:—
ENGINE WHEEL, 36 ft. diameter, 5 ft. 6 in. breast, with iron axle and rings, and dies, brasses, &c., complete.
135 fms. of 2½ in. round and 2 in. square iron rods, with pulleys and stand.
Main bob at engine-shaft.
Balance-bob, with crank and connections.
Capstan and shears.
About 120 fms. of 10 in. capstan rope.
20 15 in. 9 ft. pumps, with H piece, door-piece, and windbore.
3 8 in. 9 ft. working pieces.
32 9 in. 9 ft. pumps.
9 12 in. 9 ft. ditto.
4 11 in. 9 ft. ditto.
20 8 in. 9 ft. working pieces.
1 16 in. plunger pole.
1 9 in. ditto.
2 8 in. plunger poles, with cylinders, H pieces, doorpieces, stuffing boxes, and glands complete.
A large quantity of drawing lift rods.
A quantity of 4 in. 6 ft. iron air pipes.
About 15 tons of railroad iron, 2½ in. by ¾ in.
3 iron railroad wagons.
Large quantity of shaft plank; large quantity of 7, 8, and 15 in. rods, with plates and bolts complete; 5 large sheds in good condition; account-house furniture and effects.
The whole of the above may be viewed on application to Capt. LEAR, one week previous to the sale, when descriptive catalogues will be ready, and may be obtained at the mine or of the auctioneers.
Refreshments on the table at Eleven o'clock, and the sale will commence precisely at Twelve o'clock.
Prior to the sale of the materials, the sets will be offered for sale, unless previously disposed of by private contract, of which due notice will be given. They are very extensive, and comprise the lands adjoining the prosperous tin mine called Furze Hill, on which a steam-engine is about to be erected.
Further particulars may be obtained on application to Mr. BRIDGMAN, solicitor, Tavistock.—Dated September 9th, 1861.

IMPORTANT SALE OF VALUABLE MINERAL PROPERTY, IN THE WICKLOW COPPER AND SULPHUR MINING DISTRICT.

MESSRS. JOHN LITTLEDALE AND CO. WILL SELL, BY AUCTION, on the premises, known as the BALLYMOONEE COPPER AND SULPHUR MINES, on Tuesday, the 1st day of October, 1861, at the hour of Twelve o'clock at noon, in One Lot, or otherwise in separate lots, so far as the plant and machinery are concerned, as may be determined on at the time of sale, subject to the conditions to be then and there produced.

All that VALUABLE MINERAL PROPERTY, known as the BALLYMOONEE COPPER AND SULPHUR MINES, situate near the Vale of Ovoca, and adjacent to the Ballygabbinn, Ballymurtagh, Cronebane, and Connorree Mines, the great sulphur mines belonging to the Wicklow Copper Mine Company, H. Hodson, the Messrs. Williams, and others in the county Wicklow, together with the BUILDINGS, PLANT, STEAM ENGINE, STORES, ORES, MATERIALS, and PITWORK, as now on the premises.
The mining set now offered for sale extends over an area of over 400 acres, and is situated nearly in the centre of the group of mines which have been and are now unrivalled for the production of copper and sulphur ores.
Nine well-known defined copper and sulphur lodes traverse the entire range of the set, and which are the same as are so productive in the great mines referred to. The present company have only opened upon one of those lodes, leaving all those others entire; and in the driving of a very extensive adit level across the property, the erection of machinery, plant, buildings, and working the mines, have expended £20,000; but being a company under the Limited Liability Act, and having expended their capital, they are compelled to wind-up, and offer their property for sale when they believe they were on the point of discovering a very valuable and productive mine. Some hundreds of tons of ores have been sold from this one lode, but it is thought all the others will be productive. Very great expense has been gone to in the erection of houses and mines works, and it is considered by eminent mining authorities that the expenditure of a small amount of additional capital would enable a new proprietor to obtain the prize sought for by the present owners. The machinery and plant are nearly new, and in excellent condition. This appears to be an opening for a new limited company seldom to be equalled.
The set is held under a lease dated the 29th day of January, 1841, for 41 years from the 1st day of November, 1840, subject to the head rent of £50 per annum, and two royalties of 30th each, but such royalties are only payable in excess of the £50.
The PLANT and MACHINERY consist of a DOUBLE ACTING ROTATORY CONDENSING STEAM ENGINE, adapted for working and pumping, 22½ in. cylinder, 5 ft. stroke, with BOILER about 10 tons, all complete; a balance-bob and dlat ditto, complete; one piece of connection rod, with caps and brasses, complete; one crab whim (double power), one 8 ft. 8 in. windbore, one 10 ft. 8 in. working barrel, one 4 ft. 9 in. doorpiece, one 4 ft. 8 in. doorpiece, one 9 ft. 9 in. pumps, one 9 ft. 6 in. windbore, one 9 ft. 6 in. working barrel, two 3 ft. 7 in. doorpieces, ten 9 ft. 7 in. pumps, one 8 ft. 7½ in. plunger pole, with stuffing box and gland, complete; one 4 ft. 8 in. H piece, one 4 ft. 8 in. doorpiece, one 4 ft. 7 in. windbore, two 9 ft. 7 in. pumps, one 9 ft. 7 in. ditto, 4 brass castings, valves and bucket rods, one horse whim and stands, complete; three whim kiddles, two winze ditto, two tram wagons, 300 fms. of railroad iron, a quantity of ladders, smiths' bellows, tools, anvils, and vice, miners' tools, screw stocks, carpenter's shop, bench, and stable, a lot of iron and steel (new), 100 fms. of chain, four pulleys, a quantity of timber, office furniture, &c.
Particulars and conditions of sale may be had of A. McNEALE, Esq., 10, North Great George-street, Dublin; or of VAUGHAN FRANCE, Esq., solicitor, 37, New Bridge-street, Blackfriars, London; and to view the property apply to Captain SILAS EVANS, at the mines; and of JOHN LITTLEDALE and Co., auctioneers, 9, Upper Ormond-quay, Dublin.

THE MEETING OF THE WATERS.

MR. HENRY MACPHAIL WILL SELL, BY AUCTION, by desire of the owner, on Thursday, the 10th day of October next, at the rooms of Messrs. Hodges, Smith, and Co., Ordnance and Estate Agency, No. 104, Grafton-street, Dublin, at One o'clock (unless previously disposed of by private contract, of which due notice would be given), the AGREEMENTS FOR LEASES for 42 years, with the RIGHT TO PURCHASE THE FREEHOLD of the principal part, and the UNEXPIRED TERM of 994 years of the REMAINING PORTION of the beautiful and romantic MEETING OF THE WATERS, in the VALE OF OVOCA, county WICKLOW, comprising about nine statute acres of meadow land and gardens, &c., with one nine roomed house (the Ovoca cottage), one seven roomed cottage (the Lion's Bridge cottage), and one two roomed cottage (the Lode), all slated and in good repair, with out-houses and several gardens and grounds, beautifully wooded.
The principal garden measures upwards of one statute acre, has a south aspect, is good well, and between forty and fifty fruit trees, all in excellent bearing order.
When the proposed station at the Lion's Bridge of the Dublin, Wicklow, and Wexford Extension Railway is erected, it will join this property, and the goods and passenger stations at Rathdrum and Newbridge will be within easy distances, making this an unsurpassed site for an hotel, which is much required in this celebrated neighbourhood, or for one or more private residences.
The property is bounded on the north side by three county roads, offering great inducement for building speculation, there being a great demand for all classes of dwellings.
One-half of the Avonmore and Avonbeg Rivers are, for a considerable distance, within the boundary of this demesne, and it is calculated that the Avonmore River gives to this property water-power of upwards of 100 horses.
Immediate possession can be given of the whole property, except only the Lion's Bridge cottage, which is let from quarter to quarter to the Messrs. W. and J. M. Williams, of Scorrier House, Cornwall, and can be had on Christmas next.
For plans and further particulars, apply to Messrs. HODGES, SMITH, and Co., Ordnance and Estate Agency, 104, Grafton-street, Dublin.
The caretaker at the Ovoca cottage will show the property.

PRELIMINARY NOTICE.
TO IRONMASTERS, CAPITALISTS, AND OTHERS.

MESSRS. BARNARD, THOMAS, AND CO. will shortly OFFER FOR SALE, BY PUBLIC AUCTION (if not previously disposed of by private contract), the EXTENSIVE FREEHOLD and LEASEHOLD PREMISES, known as the CLYDACH IRONWORKS, situated in the parish of LLANELLY, in the county of BRECON, and comprising upwards of 600 acres of VALUABLE MINES OF COAL AND IRONSTONE, with LIMESTONE, HEARTHSTONE, SANDSTONE, FIRE-CLAY, and every material requisite for ironworks. FOUR BLAST FURNACES, weigh bridges, cart houses, mine kilns, coke yards (with 72 ovens), capital forge, three rolling mills, counting-houses, warehouses, stables, agents and surgeon's houses, 144 workmen's cottages, shops, STEAM ENGINES (by Bolton and Watt and Trevethick), and other necessary BUILDINGS and PLANT.
A BRICK YARD, with CLAY MILL, BRICK KILN, and STOVES, capable of making 9000 fire-bricks per week, with dwelling-house and extensive coal yard.
The works are very large and commodious, are capable of turning out 300 tons of finished bar and rod iron per week, and are fully supplied with steam and water-power, and every necessary for carrying on an extensive and first-class iron manufacture. They are connected by a tram-road (with incline) with the Brecon and Aberystwyth Canal only one mile distant, and are about half a mile from the Merthyr, Tredgar, and Aberystwyth Railway, now in course of construction.
Further particulars will appear in future advertisements, and in the meantime applications to treat may be made to JOHN JAYNE, Esq., Nantyglo; Messrs. BARNARD, THOMAS, and Co., Albion Chambers, Bristol; J. R. CORN, Esq., solicitor, Brecon; Messrs. GABS and WALFORD, solicitors, Aberystwyth; or Messrs. ASBOT, LUCAS, and LAMONARD, solicitors, Bristol.—Bristol, September 13, 1861.

NORTH DOWNS AND WHEAL ROSE MINE.

FOR SALE, BY PRIVATE CONTRACT, in One Lot, all those VALUABLE and newly erected ENGINES and MACHINERY, with every requisite for carrying on the mine on a very extensive working, viz.:-

ONE 80 in. PUMPING ENGINE, with FOUR BOILERS, 11 tons each.

ONE 24 in. STEAM WHIM and CRUSHER, and ONE BOILER, 10 tons, in first-rate condition.

Capstan and shears, cat head.

200 fms. 16 in. capstan rope, new.

150 fms. of 7, 15, and 16 in. rods.

160 fms. of pitwork, from 12 to 19 in., with bottoms complete.

5 tons of strapping plates, all of hammered iron.

9 tons of tramroad iron.

400 fms. of wood haulers.

Bucket rods, double and single winches, beam and scales, gunpowder, tallow, candles, oil, nails, material house, saw house, grindstone, 6 anvils, 4 smiths' bellows, 2 cranes, 1 vice, smiths' tools, miners' tools, screw stocks, taps and plates, 16 horse whim kibbles, 12 winze ditto; also the account-house furniture.

Sealed tenders will be received by Mr. R. GREENWOOD, the purser, at his office, Truro, for the whole, in One lot, on or before Tuesday, the 24th inst.

For viewing the same, apply to Capt. M. JENKIN, on the mine; Capt. J. VIVIAN, North Roscar, Camborne; or to Mr. R. GREENWOOD, Truro.

Truro, September 12, 1861.

TO CAPITALISTS AND OTHERS.

TO BE SOLD, BY PRIVATE CONTRACT, with immediate possession, the FENCE COLLIERY, at the Woodhouse Mill station on the Midland Railway. The shafts are sunk down to and working the High Hazle seam of coal, and the colliery is at the present time capable of producing from 150 to 200 tons a day.

The colliery is very favourably situated, in close proximity to the Midland and Manchester, Sheffield, and Lincolnshire Railway, and in the immediate neighbourhood of Sheffield and the manufacturing districts adjoining.

The celebrated thick, or Barnsley seam of Yorkshire exists under this property at a moderate depth, and a very favourable opportunity presents itself for the establishment of a colliery upon this seam at a comparatively small outlay.

The whole of the plant, machinery, and cottages, &c., may be taken to.

Further particulars may be obtained from, and offers will be received by, Messrs. RYLAND and MARTINEAU, solicitors, Birmingham; or Messrs. Woodhouse and JEFFCOCK, civil and mining engineers, Derby.

NORTH WALES—SLATE QUARRYING PROPERTY.—The UNEXPIRED TERM of a LEASE of a FIRST-CLASS MINERAL PROPERTY TO BE DISPOSED OF, in the neighbourhood of FESTINIOG.—For further particulars, apply to Mr. W. R. WILLIAMS, mining engineer and mineral surveyor, Dolgelly, North Wales.

VALUABLE PLASTER MINES AND LAND, AT CHELLASTON, DERBYSHIRE.—TO BE LET, BY TENDER, for the term of seven years, from the 1st day of November, 1861, all those well-known and LUCRATIVE MINES OF PLASTER, now in full work, situate in the parish of CHELLASTON aforesaid, and about four miles distant from the town of DERBY, with a COMMODIOUS WHARF and BUILDINGS thereon, lying by the side of the Derby Canal at Shilton Bridge, and adjoining the turnpike-road leading from Chellaston to Derby. And also about FORTY ACRES OF PASTURE and ARABLE LAND, with a COTTAGE thereon, lying over the said mine or contiguous thereto.

The above mines have been worked by the late Mr. George Wootton for a considerable period, and the plaster raised therefrom is of a very superior quality, and commands an extensive sale. The present condition is large, and highly respectable. A good road leads from the mines to the said turnpike-road, the former being distant about 1½ mile from the aforesaid wharf; and a wharf on the Trent and Mersey Canal may be rented if wished.

The lessee will be required to take to the steam-engine and pump now in use at the mines at a valuation, and to find satisfactory security for the payment of the rents, and for the due observance of the covenants and stipulations to be contained in the lease.

The rent to be paid for the plaster will be a royalty per (standard) ton for each of the different qualities of plaster worked and got, the lessee at the same time binding himself to pay a fixed minimum rent, and the tender should be made in the alternative—viz., either to pay a separate royalty per ton for each quality of stone, or an average royalty per ton for all qualities.

Tenders, specifying the royalties offered in respect of the plaster, the minimum rent offered, and the rent offered in respect of the land, cottage, wharf, and buildings are required to be sent in to Messrs. E. and T. FISHER, solicitors, Ashby de la Zouche, on or before the 30th day of September, 1861.

The proprietors do not bind themselves to accept the highest or any other tender.

It is probable that about 20 acres of additional pasture land may be let from year to year with the before-mentioned land if desired.

To view the mines and premises, application should be made to Mr. JAMES POND, of Chellaston; and any further information may be obtained of Messrs. WOODHOUSE and JEFFCOCK, mineral agents, Derby; or of Messrs. E. and T. FISHER, solicitors, Ashby de la Zouche.

TO BLACKSMITHS, CHAIN MAKERS, FOUNDRERS, AND OTHERS.

TO BE SOLD, BY PRIVATE CONTRACT, all that BLOCK of well and recently built PROPERTY on the NORTH SIDE of WEAR STREET to the CORNER of HUDDLESTON STREET, MONKWEARMOUTH SHORE, near the Ferry Landing, consisting of six shops, Nos. 73, 74, 75, 76, 77, and 78, and offices above, with separate entrance from Huddleston-street, and smith's large jobbing shop, with nine fires adjoining; in the back-row, chain makers' shop, with eleven fires, testing machine, and steam-engine attached; an excellent foundry, with two cupolas, crane, engine, fire blast, and all necessary apparatus; on the opposite side of Back-row are a stable, iron warehouse, foreman's office, hay-loft, and fitting, drilling, and pattern shops, with necessary machines.

The above premises are adjacent to the River Wear, and form one of the best works of the kind, in a first-rate business situation.

For further particulars, apply to Messrs. A. J. and Wm. MOORE, solicitors, 4, Bridge-street.—Sunderland, August 28, 1861.

NEW COLLIERY, NAILSEA, NEAR BRISTOL.

FOR SALE, BY PRIVATE CONTRACT, the WHOLE of the PLANT and MATERIALS at the above colliery, comprising—

ONE HIGH PRESSURE DIRECT ACTING PUMPING ENGINE, cylinder 45 in.

In diameter, and 10 ft. stroke.

ONE HIGH PRESSURE WINDING ENGINE and gear, cylinder 12 in. diameter.

ONE HIGH PRESSURE WINDING ENGINE, cylinder 16 in. diameter.

THREE CYLINDRICAL BOILERS, 41 ft. by 6 ft.

ONE CYLINDRICAL BOILER, 18 ft. by 4 ft.

ONE CYLINDRICAL BOILER, 20 ft. by 3 ft. 6 in.

Hammered iron pumping cranks, 2 bolts, 19 in., 14½ in., 5 in., and 4½ in.

forcing, lifting, and hand pumps; hammered iron straps, double straps and tail joints, buckets, clacks, wrought-iron pistons, lifting screws, chains, large capstan, double-power crab winch, 80 lbs. 10½ capstan rope, 8 in. capstan and other ropes, blocks, boring tools, wrought-iron air pipes, iron plates, smiths' bellows and tools, wagons, carts, &c.

To view, apply at the colliery; and for all further particulars, to RODDAN CASTLE, Esq., No. 29, Corn-street, Bristol.

TO BE LET, for such a term as may be agreed on, from 25th March

next, the LONG BENTON COLLIERY, near Newcastle-on-Tyne, the property of the Right Hon. the Earl of Carlisle.

At this colliery the High Main Seam has been carefully tubbed off, and the shafts sunk to the Low Main Seam, which is now in working.

The engines, screens, and other stock upon the colliery may be taken at a valuation.

Further information can be obtained on application to M. LINDELL, Esq., Hedgfield, Newcastle.—September 2, 1861.

HORIZONTAL STEAM ENGINES FOR SALE, one each of

14, 17, and 20 in. cylinders, 36 in. stroke, quite new. They are especially adapted

for mining purposes, and are very substantially made. Also, several of from 6 to 8 horse

power.—Apply to Messrs. E. PAGE and Co., Engineers, Laurence Pountney-place, Laurence Pountney-hill, Cannon-street, E.C.

FOR SALE, STEAM ENGINE, CRUSHER, HAULING

MACHINE, PUMPS, AND CONNECTIONS.—A first-rate 20 inch cylinder

HORIZONTAL CONDENSING STEAM ENGINE, with 7 ton boiler and outfit complete,

fly-wheel, 5 ft. stroke. CRUSHER, 24 in. diameter, rolls and connections for

fine HAULING and PUMPING MACHINERY, and connections, by Messrs. Nicholls,

Williams, and Co. Also, two metal pumps, 8 in. bore, about 34 fms., in 23 joints, with

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All nearly new, and in good condition.—For particulars, apply to Mr. RICHARD PEARSON,

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By providing the power of calculating the time and cost to explore a certain depth

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portant invention must beneficially interest the landowners, mine proprietors, mer

chants, and miners, we opine it will meet with immediate adoption.—Mining Journal

THE SLATE MOUNTAIN COMPANY (LIMITED). NOTICE OF DIVIDEND.

The Directors of the above company hereby give notice that they have concluded

an arrangement with a thoroughly responsible party to undertake the management of

the company's operations in Wales; and have, at the same time, to inform the public

that the MANAGER has undertaken to GUARANTEE to all shareholders in the com

pany a DIVIDEND for the FIRST YEAR, and has lodged with the company's bankers

an amount of cash more than sufficient to cover his guarantee.

Office, 4, Lothbury, E.C. By order, A. MAYOR, Secy.

THE SLATE MOUNTAIN COMPANY (LIMITED).

Capital £20,000, in 6000 shares of £5 each.

Deposit, £1 per share; and £1 upon allotment.

Registered pursuant to the Joint-Stock Companies Acts, limiting the liability of each

shareholder to the amount of their subscriptions.

CHAIRMAN—Major-General MASON, Brompton.

DIRECTORS.

ALEXANDER CURRIE, Esq., Teignbridge, Newton Abbott.

JOSHUA FINNER, Esq., South American Chambers, Cecil-street, Strand.

LORD GORDON, Hampton, Surrey.

Colonel GEORGE M. GUMM, Beaumont-street, Portland-place.

JOSEPH HOPGOOD, Esq., Addison-road, Kensington, W.

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BANKERS—Bank of London, Threadneedle-street.

Full prospectuses, with reports upon the quarry by one of the Government Geological

Surveyors; Mr. Jones, the slate merchant in the City-road; Mr. William Griffiths, the

manager of the Moelwyn Quarries; Capt. Silas Evans, of Ovoca, manager of the Carysfort

Mines; and other practical and experienced authorities, together with forms of applica

tion for shares, can be obtained from the secretary, at the company's offices, 4, Lothbury,

or from any of the brokers.

All deposits returned in full, unless half of the shares are subscribed for.

THE SLATE MOUNTAIN COMPANY (LIMITED).

Notice is hereby given that, owing to the numerous applications for shares already

sent in, the Directors will meet to consider the same and MAKE the REQUISITE

ALLOTMENTS on FRIDAY, the 27th of September.

Office, 4, Lothbury. By order, A. MAYOR, Secy.

THE SLATE MOUNTAIN COMPANY (LIMITED).

ALL APPLICATIONS FOR SHARES in this company MUST BE SENT IN to the

Brokers or Secretary ON OR BEFORE THURSDAY, the 26th of September.

By order, A. MAYOR, Secy.

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NICHOLLS, WILLIAMS, AND CO. have generally a GOOD STOCK of SECOND-HAND MINING MATERIALS FOR SALE. They also MANUFACTURE STEAM ENGINES of every description on the newest principle. Castings and wrought-iron work made at the shortest notice. Machinery sent to all parts of the world. Steam boilers and chains warranted of the best description.

SWAN'S PATENT LUBRICATORS.—These lubricators, the MOST ECONOMICAL and EFFECTIVE IN USE, CAN BE ARRANGED TO LUBRICATE MORE THAN ONE BEARING from the SAME APPARATUS, and the EXACT QUANTITY of OIL REGULATED to EACH.—May be had on application to the PATENTERS, at Hammersmith; or to J. B. MAXTON, No. 5, Arthur-street East, London-bridge, E.C.

BELL BROTHERS beg to intimate that, having become SOLE LICENSEES in the United Kingdom of FROD'S METHOD OF PRODUCING PURE ALUMINIUM, they are now in a POSITION to SUPPLY, from their works here, both this metal and its compound with copper, known under the name of ALUMINIUM BRONZE.—Newcastle-on-Tyne, September, 1860.

BAILEY'S PATENT STEAM GAUGE.—This truly valuable invention is most undoubtedly the only gauge ever invented not affected by those atmospheric changes and many other evil influences, which are the bane of all

THE MINING SHARE LIST.

DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
4000	Bedford United (copper), Tavistock	2 6 8.	5 3 4 1/2	12 8 6.	0 1 6—Sept. 1861
240	Boscan (tin), St. Just	20 10 0.	50	33 0 0.	1 10 0—May, 1861
200	Botallack (tin, copper), St. Just	91 5 0.	240	443 5 0.	2 10 0—Feb. 1860
1000	Carn Brea (copper, tin), Illogan	15 0 0.	77 80	269 10 0.	2 0 0—Feb. 1861
2048	Carnyorth (tin), St. Just	3 10 0.	1 1/2	0 19 0.	2 0 0—Sept. 1860
200	Cefn Cwm Brwyno (lead), Cardiganshire	13 0 0.	33	9 0 0.	4 0 0—April, 1861
80000	Concorres (copper, sulphur), Llanelli	17 0 0.	1 1/2	0 13 0.	5 0 0—Sept. 1861
2450	Cook's Kitchen (copper), Illogan	33 0 0.	30 31	7 1/2 per cent.	—Half-yearly.
12000	Copper Mines of England	25 0 0.	25	1 per cent.	—Half-yearly.
350000	Ditto ditto (stock)	100 0 0.	24	5 13 0.	0 5 0—July, 1861
1055	Cradock Moor (copper), St. Cleer	8 0 0.	20 25	5 8 0.	1 0 0—June, 1861
867	Cwm Ertin (lead), Cardiganshire	7 10 0.	16 1/2	227 10 0.	5 0 0—May, 1861
128	Cwmystwith (lead), Cardiganshire	60 0 0.	240	142 0 0.	5 0 0—June, 1861
280	Derwent Mines (sil.-lead), Durham	300 0 0.	180	767 0 0.	7 0 0—Sept. 1861
1024	Devon Gt. Con. (copper), Tavistock	1 0 0.	350 360	632 10 0.	7 0 0—Aug. 1861
305	Dolgoch (tin), Camborne	12 17 6.	510	3 7 0.	0 1 0—Sept. 1861
512	East Basset (copper), St. Cleer	2 14 6.	26 1/2	0 17 0.	0 10 0—July, 1861
6144	East Caradon (copper), St. Cleer	2 14 6.	26 1/2	77 10 0.	1 0 0—Aug. 1861
200	East Darren (lead), Cardiganshire	32 0 0.	67	0 5 0.	0 5 0—July, 1859
2048	East Wheel Lovell (tin), Wendron	2 10 0.	—	20 34 0.	4 10 0—May, 1861
1400	Eyam Mining Co. (lead), Derbyshire	5 0 0.	—	41 9 2.	0 2 0—June, 1860
4940	Fowey Consols (copper), Tavyardhead	4 0 0.	5	61 8 2.	1 0 0—Dec. 1860
2560	Foxdale, Isle of Man, Limited	25 0 0.	35	0 14 0.	0 3 0—Sept. 1861
5000	Frank Mills (lead), Devon	3 18 6.	4 1/2	7 13 0.	0 5 0—Feb. 1861
6000	Great South Tolgus (S.E.), Redruth	0 14 6.	4 1/2	0 12 0.	0 10 0—July, 1861
1798	Great Wheel Fortunes, Breage	18 6 0.	15 1/2	14 10 0.	0 10 0—July, 1861
5908	Great Wh. Vor (tin, cop.), Helston	49 0 0.	—	14 10 0.	0 2 0—June, 1861
1024	Herodotus (id.), near Liskeard	8 10 0.	36	77 10 0.	0 15 0—Sept. 1861
1000	Hibernian Mine Company	92 6 0.	—	0 10 0.	0 10 0—Sept. 1861
160	Levant (copper, tin), St. Just	2 10 0.	95	0 10 0.	0 5 0—May, 1860
400	Liaburne (lead), Cardiganshire, Wales	18 15 0.	125	375 10 0.	2 0 0—Aug. 1861
9000	Marke Valley (copper), Cardigan	4 10 0.	10 10 1/2	1 1 0.	0 5 0—July, 1861
6000	Mendips Hills (lead), [L.], Somerset	3 15 0.	1 1/2	2 9 0.	0 2 0—May, 1860
1800	Miners Mining Co. [L.], [id.], Wrexham	25 0 0.	180	75 0 0.	0 4 0—Aug. 1861
9000	Minning Co. of Ireland (cop., lead, coal)	7 0 0.	14 1/2	14 7 11.	0 7 0—June, 1861
640	Mount Pleasant, Mold	4 0 0.	20	15 7 0.	0 10 0—Sept. 1861
6000	New Birch Tor and Viller Consols	1 6 0.	2 1/2	52 0 0.	2 0 0—May, 1861
6000	North Down (copper), Redruth	2 3 6.	5 1/2	0 2 0.	0 2 0—June, 1861
1326	North Granbler, Redruth	2 7 6.	6	0 10 0.	0 10 0—Mar. 1861
6000	North Great Work, Breage	1 3 0.	4 1/2	0 2 0.	0 2 0—May, 1861
6000	Oradell (lead), Flintshire	0 8 0.	1 1/2	0 6 0.	0 9 0—Mar. 1861
6400	Par Consols (cop.), St. Blazey [S.E.]	1 2 6.	9 1/2	36 4 6.	0 5 0—July, 1861
200	Parys Mines (copper), Anglesey [L.]	50 0 0.	—	7 10 0.	2 10 0—April, 1861
200	Phenix (copper, tin), Llanidloes	100 0 0.	435	449 10 0.	0 55 0—May, 1861
1772	Pilberron (tin), St. Agnes	10 6 7.	44	6 9 6.	0 15 0—April, 1861
1120	Providence (tin), Uny Lelant [S.E.]	10 6 7.	44	0 15 0.	0 10 0—Aug. 1861
16	Rhodesmore	50 0 0.	—	1250 0 0.	100 0 0—July, 1861
512	South Caradon (cop.), St. Cleer	2 14 6.	26 1/2	351 0 0.	5 0 0—July, 1861
512	South Tolgus (cop.), Redruth, Cornwall	8 0 0.	30	102 10 0.	1 0 0—April, 1861
496	South Wheel Frances, Illogan	18 18 9.	117	856 5 0.	1 0 0—Sept. 1861
280	Spern Moor (tin, copper), St. Just	31 17 9.	45	9 15 0.	1 0 0—June, 1861
940	St. Ives Consols (cop.), St. Ives	8 0 0.	32	484 0 0.	0 15 0—May, 1861
9000	Tamar Con. (sil.-id.), Beeralton [S.E.]	4 10 0.	1 1/2	5 6 0.	0 2 0—Jan. 1861
6000	Tincoff (cop., tin), Pool, Illogan [S.E.]	9 0 0.	6 1/2	10 8 6.	0 5 0—Feb. 1861
6000	Tolladon (copper), Marazion	2 1/2	—	0 13 0.	0 3 0—Mar. 1860
572	Trevelyan Consols (tin), St. Ives	11 10 0.	20	7 0 0.	0 10 0—Sept. 1860
300	Trumpet Consols (tin), near Helston	57 10 0.	109	52 0 0.	2 0 0—May, 1861
1024	Wendron Consols (tin), Wendron	11 13 0.	14	8 15 0.	1 0 0—Jan. 1861
6000	West Basset (copper), Illogan [S.E.]	1 10 0.	17	21 15 0.	0 5 0—July, 1861
60	West Burton Gill (lead), Yorkshire	50 0 0.	—	14 10 0.	3 0 0—June, 1861
1024	West Caradon (cop.), Liskeard [S.E.]	5 0 0.	42	98 1 3.	1 10 0—July, 1861
256	West Fowey Consols, Gwennap	37 0 0.	58	45 0 0.	1 0 0—May, 1860
6400	West Fowey Consols (tin and copper)	7 10 0.	5	0 14 0.	0 2 0—May, 1861
400	W. Wh. Baset (cop.), Camborne [S.E.]	47 10 0.	340	315 0 0.	7 0 0—Aug. 1861
512	Wheat Consols (copper), Illogan [S.E.]	5 2 6.	87 1/2	572 10 0.	2 0 0—Aug. 1861
256	Wheat Butler (cop.), Redruth	5 0 0.	90	92 0 0.	2 0 0—May, 1861
2920	W. Wh. Clifford Amalgamated (cop.), Gwennap	30 0 0.	30	16 0 0.	2 0 0—Nov. 1856
200	Wheat Falmouth and Sperris	2 0 0.	8	0 10 0.	0 10 0—Feb. 1861
128	Wheat Friendship (copper), Devon	50 0 0.	90	2400 10 0.	5 0 0—Feb. 1861
512	Wheat Jane (silver-lead), Ken	3 10 0.	18	10 10 0.	1 0 0—Feb. 1860
1024	Wheat Kitty (tin), Uny Lelant [S.E.]	1 7 2.	7	8 0 0.	0 10 0—Sept. 1860
4800	Wheat Luddock (lead), St. Ives	2 10 8.	3 1/2	1 8 0.	0 4 0—July, 1861
896	W. Wh. Margaret (tin), Uny Lel. [S.E.]	9 17 6.	46	69 0 0.	1 0 0—Aug. 1861
100	Wheat Mary (tin), Lelant	36 2 6.	440	280 5 0.	7 0 0—June, 1860
1024	W. Wh. Mary Ann (id.), Menaiho [S.E.]	8 0 0.	10	54 7 6.	0 10 0—Sept. 1861
80	Wheat Mary Ann (id.), Menaiho [S.E.]	7 0 0.	30	280 13 0.	5 0 0—Aug. 1861
5000	Wicklow (copper) [L.], Wicklow	5 0 0.	59	41 17 6.	2 12 0—Mar. 1861

[* Dividends paid every two months. † Dividends paid every three months.]

MINES WITH DIVIDENDS IN ABEYANCE.

700	Aberdovey (silver-lead), Merioneth	1 10 0.	30	0 10 0.	0 10 0—Mar. 1859
5120	Alfred Consols (cop.), Phillack [S.E.]	3 3 6.	1	20 3 0.	0 2 0—April, 1859
1624	Baitawadden (tin), St. Just	11 15 0.	12	12 0 0.	0 5 0—Jan. 1861
1200	Brightside & Froggatt Grove, Derbysh.	3 0 0.	3 1/2	3 0 0.	3 0 0—April, 1856
200	Brynford Hall (lead), Flintshire	15 10 0.	23	14 0 0.	0 20 0—Oct. 1860
2500	Central Miners (lead) [L.], [id.]	0 18 0.	5 1/2	0 4 0.	0 4 0—Sept. 1859
6000	Charlotte United, Penryn	2 3 2.	1	0 13 0.	0 1 0—Sept. 1859
2000	Collicombe (copper), Lamerton	5 5 0.	12	3 5 0.	0 5 0—Dec. 1857
256	Condurow (cop.), Illogan	20 0 0.	100	85 0 0.	2 0 0—June, 1857
4076	Devon and Cornwall (copper)	5 3 6.	6	0 10 0.	0 2 0—Sept. 1859
672	Ding Dong (tin), Gwilt	39 2 6.	25	16 7 6.	1 10 0—Mar. 1857
12800	Drake Walls (tin, copper), Calstock	2 1 0.	1 1/2	0 13 0.	0 2 0—Sept. 1857
2048	East Falmouth (sil.-id.), Kenwyn	2 15 0.	1 1/2	0 7 0.	0 2 0—Jan. 1858
128	East Pool (tin, copper), Pool, Illogan	2 15 0.	290	305 0 0.	2 10 0—Aug. 1858
6000	General Mining Co. for Ire. (cop., id.)	4 0 0.	5 1/2	1 0 0.	0 3 0—June, 1863
486	Gambler and St. Aubyn (cop.), [id.]	47 10 0.	13	23 0 0.	1 0 0—July, 1860
119	Great Work (tin), Gwennap	100 0 0.	110	221 10 0.	7 10 0—Feb. 1857
200	Harward United (lead), Flintshire	40 0 0.	10	3 0 0.	1 0 0—July, 1860
6000	Hilgaton Down Con. (cop.), Cals [S.E.]	4 18 0.	3	0 6 0.	0 2 0—Feb. 1859
5000	Kelly Bray (lead, copper), Callington	4 0 0.	1	0 6 0.	0 2 0—Feb. 1859
20	Laxey Mining Company, Isle of Man	100 0 0.	1200	1420 0 0.	0 50 0—June, 1857
470	Newtownards Mining Co., Co. Down	60 0 0.	35	66 0 0.	1 0 0—Sept. 1858
700	North Rosker (copper), Camborne	17 0 0.	19	167 0 0.	4 0 0—Sept. 1853
512	Rosewarne United (cop.), Gwennap	19 6 2.	22	33 10 0.	1 0 0—Sept. 1860
12900	Sordridge Con. (cop.), Whitechurch [S.E.]	0 16 0.	98	10 10 0.	0 2 0—June, 1857
128	St. Day United (tin, copper), St. Austell	19 0 0.	285	60 0 0.	0 20 0—June, 1855
20000	St. Day United (tin, copper), St. Austell	19 0 0.	285	0 3 0.	0 1 0—Feb. 1858
30000	Valley of For (lead), Carnarvon [S.E.]	0 13 0.	6	0 5 0.	0 10 0—April, 1858
1024	West Providence (tin), St. Erth	15 15 0.	3 1/2	33 2 0.	0 10 0—Feb. 1858
240	Wheat Bait (tin), St. Just	15 0 0.	16	4 0 0.	0 1 0—Feb. 1858
4096	Wheat Gwilt (cop.), Calstock [S.E.]	7 7 6.	2 1/2	0 5 0.	0 5 0—Mar. 1858
1024	Wheat Harriet (tin), Penryn	2 4 0.	5 1/2	1 12 0.	0 7 0—Nov. 1858
6000	Wheat Kitty (tin), St. Agnes	4 16 6.	3 1/2	0 18 0.	0 2 0—July, 1856
345	Wheat Lelant (tin), Wendron	33 0 0.	7	31 0 0.	1 0 0—Sept. 1856
1024	Wheat Margaret (tin, copper)	15 13 0.	6	0 10 0.	0 10 0—May, 1860
396	Wheat Mary (tin, copper), Camborne	58 10 0.	85	131 15 0.	1 10 0—Dec. 1859
1024	W. Wh. Trelawny (sil.-id.), Liskeard [S.E.]	57 10 0.	14	43 18 0.	1 0 0—Oct. 1860
1022	Wheat Tremayus (tin, cop.), Gwennap	13 2 6.	5	10 3 0.	7 0 0—Jan. 1854
4096	Wheat Wrey Consols (lead), St. Ives	3 9 0.	3 1/2	2 12 6.	0 2 0—Dec. 1857

FOREIGN MINES.

5404	Burra Burra (cop.), South Australia	5 0 0.	135	265 0 0.	5 0 0—June, 1861
12000	Cobre Cop. Co. (cop.), Cuba [S.E.]	40 0 0.	37	97 12 0.	1 0 0—July, 1861
10000	Copple Mining Company, Chile [S.E.]	16 0 0.	8	6 8 0.	0 5 0—Jan. 1861
16000	East Indian Coal, Calcutta [L.]	10 0 0.	10	7 1/2 per cent.	—Yearly.
70000	English and Australian [S.E.]	5 0 0.	3 1/2	1 5 0.	0 2 0—Aug. 1861
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	120 0 0.	24	18 5 0.	1 0 0—June, 1861
65000	Kapunda Mining Co. (S.E.)	3 0 0.	2 1/2	8 6 2.	0 3 0—June, 1861
15000	Llanidloes (id.), Pozo Ancho, Spain [S.E.]	3 0 0.	7 1/2	0 18 0.	1 0 0—Aug. 1861
10000	Llanidloes (id.), Pozo Ancho, Spain [S.E.]	2 0 0.	2 1/2	0 9 6.	0 1 0—July, 1859
108815	Marquette and New Granada [S.E.]	1 0 0.	3 1/2	0 4 0.	0 1 0—July, 1861
100000	Port Phillip (gold), Clunes [S.E.]	1 0 0.	1	43 5 0.	2 10 0—Jan. 1861
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0.	39	0 2 0.	0 2 0—June, 1860
50000	West Canada Mining Company [L.]	1 0 0.	1 1/2	0 2 0.	0 2 0—June, 1860

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Altan and Quanganen (tin, cop.) [L.], [id.]	4 10 0.	3	4 5 0.	0 15 0—Nov. 1853
10000	Gt. Barrier Lead, Min. & Co. [L.], [id.]	4 10 0.	3 1/2	15 per cent.	—May, 1859
10000	Pontigaud (sil.-lead), France [S.E.]	20 0 0.	4	1 0 0.	1 0 0—June, 1856
43174	Unit. Mexican (sil.), Mexico [S.E.]	28 5 0.	6	1 16 6.	0 4 0—Feb. 1853

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
20000	Australian (copper), South Australia [S.E.]	7 7 6.	1 1/2	..	Sept. 1858
75000	Bon Accord, South Australia (copper) [L.] [S.E.]	0 17 6.	1 1/2	..	Dec. 1860
6000	Central American (silver) [L.]	5 0 0.	8 1/2	..	Feb. 1859
17000	Central Italian (copper) [7000 £2 paid]	0 6 0.	..	..	Jan. 1859
60000	Clarendon Consols (copper), Jamaica [S.E.]	0 17 6.	3 1/2	..	Jan. 1861
10000	Copio Smelting [L.], Chili	10 0 0.	8 1/2	..	Fully paid
75000	Dun Mountain (copper), New Zealand [L.] [S.E.]	1 0 0.	3 1/2	5/8 %	Fully paid
30000	East Kongsberg Native Silver Mining Co. of Norway [L.] [£5]	1 0 0.	3 1/2	..	April, 1861
38000	Ellerslie and Bardowie, Jamaica	0 18 0.	1 1/2	..	July, 1859
8000	English and Canadian Mining Company [L.]	5 0 0.	..	..	Fully paid
25000	Fortuna (lead), Spain [L.] [S.E.]	2 0 0.	2 1/2	1 1/2 %	Fully paid
50000	Great Northern (copper), South Australia [L.] [£2]	1 0 0.	1 1/2	1 1/2 %	Fully paid
4000	Hope Silver-Lead and Copper Mining Co. [L.]	25 0 0.	..	..	Fully paid
50000	Imperial Thessalian (lead, &c.), Thessaly [L.] [£2]	0 10 0.	3 1/2	..	June, 1860
80000	Lagunas (sulphur, copper), Portugal [L.] [£1]	0 10 0.	3 1/2	..	May, 1861
60000	New Granada (gold), South America [S.E.]	1 0 0.	3 1/2	..	Fully paid
10000	New Grand Duchy of Baden (silver-lead), near Freiburg	1 0 0.	1 1/2	..	Nov. 1858
60000	New Rhine Copper of South Australia [L.] [£1] [S.E.]	0 12 6.	3 1/2	..	June, 1861
15000	Pachuca Silver Mining Company, Mexico [L.] [£1]	0 10 0.	1 1/2	..	April, 1861
80000	Scottish Australian Mining Company [L.] [£1]	3 0 0.	7 1/2	..	Nov. 1863
15000	South Europe Mining Company, Spain [L.] [£5]	3 0 0.	7 1/2	..	May, 1861
40000	St. John's United (copper, lead), Newfoundland [L.] [£1]	0 10 0.	1 1/2	..	Mar. 1861
50000	Victor Emanuel, Italy [L.] [30,000 Pref. Shares, 5s. pd., 25,000 £1 pd.]	..	1 1/2	..	..
1000	Western Africa Malachite (copper) [L.]	110 0 0.	..	..	Oct. 1861
12000	Wheal Ellen, South Australia [L.] [£5]	4 0 0.	2 1/2	4 1/2 %	July, 1861
35425	Wheal Jamaica (copper)	1 0 0.	18s.	..	Fully paid
50000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0.	2s.	12s. 14s.	Fully paid